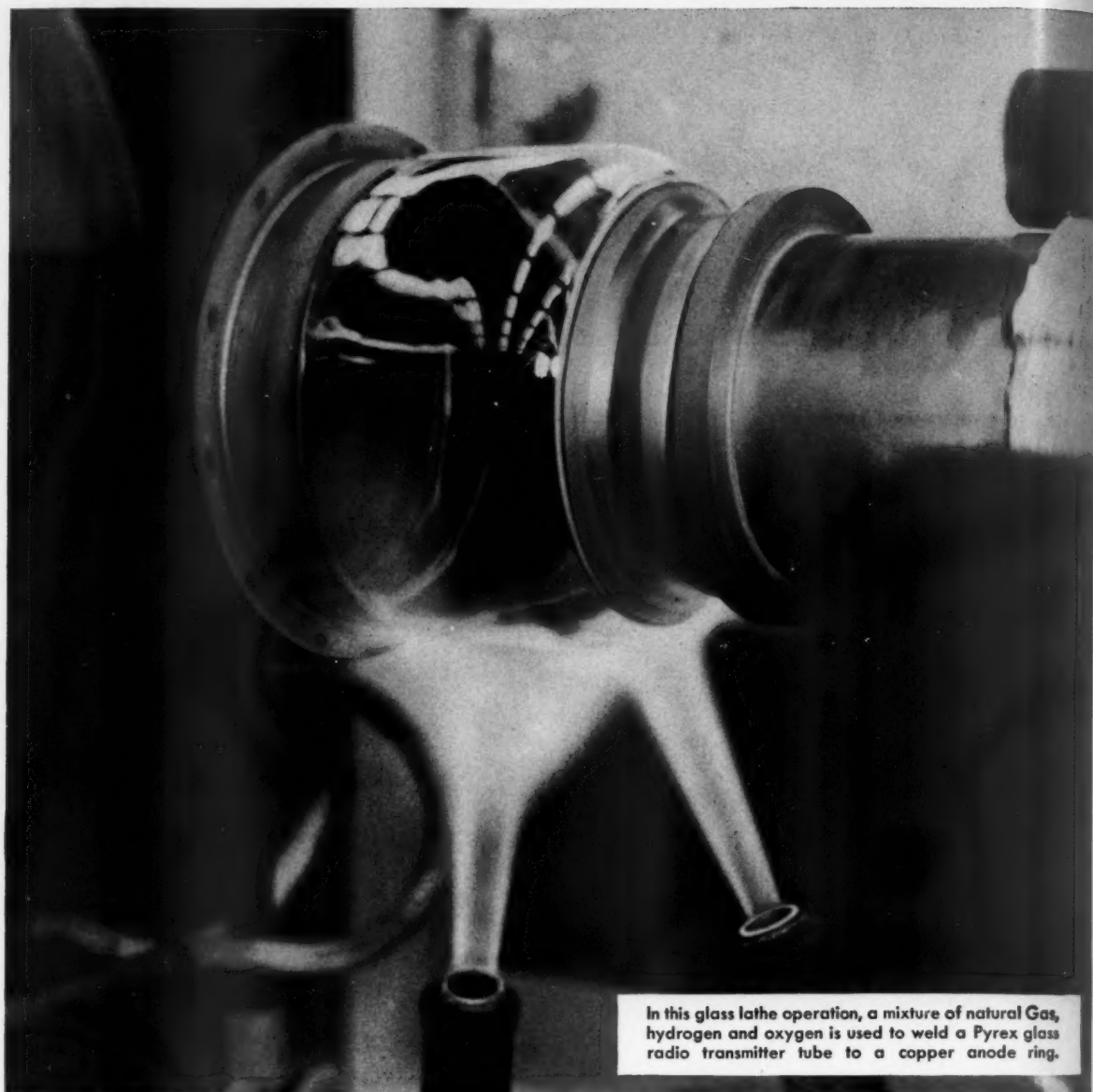


AMERICAN GAS ASSOCIATION

*Monthly*



APRIL  
1957



In this glass lathe operation, a mixture of natural Gas, hydrogen and oxygen is used to weld a Pyrex glass radio transmitter tube to a copper anode ring.

## **RCA welds glass to metal at over 2000° F. ...thanks to **GAS****

Natural Gas is used to weld glass to metal in the production of radio and television tubes of many types at the RCA Tube Division plant in Lancaster, Pennsylvania.

To effect the weld at over 2000° F., a mixture of natural Gas, hydrogen and oxygen maintains the high welding temperature on the Pyrex glass and metal parts as they rotate on a glass lathe. A Gas flame is then used to control and equalize the cooling of the glass down to the 900-600° F. range.

For information on how Gas can help you in your production operations, call your Gas Company's industrial specialist. He'll be glad to discuss the economies and superior results you get with Gas and modern Gas-fired industrial equipment. *American Gas Association.*

See Playhouse 90 with Julia Meade on CBS-TV. Watch local listings for time and station. Sponsored by your Gas Company and the Gas Industry.



Pipeliners turn homeward in twilight. Texas Gas photo

**P**ROVED recoverable natural gas reserves are more than keeping pace with expanding production. In fact, 1956 showed the greatest increase in reserves since 1945. The complete report of the Committee on Natural Gas Reserves is on the following pages. . . . Hand in hand with assuring a continuing supply of gas is the task of improving its utilization. Developments in this field are reported each year at the Research and Utilization Conference held in Cleveland. For an advance look at this year's conference agenda, turn to page 19. . . . The industry is concentrating much of its research efforts on gas air conditioning. A timely reminder that sales of gas air conditioning, particularly in large installations, need not await research is made on page 7. Leon Ourusoff points out to the New England Gas Association that now is the time to sell gas cooling. . . . One of the country's most respected utility leaders, A. M. Beebe of Rochester Gas and Electric Co., told the A. G. A. General Management Conference last month that safety is every man's obligation. Excerpts from his speech are on page 15. A complete report on the conference will be in our next issue. . . . Other conferences to be reported include Distribution, Accounting and Industrial-Commercial Sales.

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# NATURAL GAS RESERVES

AND PRODUCTION IN THE U. S. (IN TRILLION CUBIC FEET)

## ANNUAL PRODUCTION

4.9	5.7	6.0	6.3	6.9	8.0	8.6	9.2	9.4	10.1	10.9
1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
160.6	165.9	173.9	180.4	185.6	193.8	199.7	211.4	211.7	223.7	237.8
ESTIMATED RESERVES										(AT END OF YEAR)

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B. B. G.  
C. C. M.  
F. S. L.  
E. D. P.  
E. E. R.  
J. T. S.  
C. E. T.  
Waral  
Daniel

ISSUE



# Reserves continue upward trend

Proved recoverable natural gas reserves in the United States on December 31, 1956 showed the greatest increase over the previous year of any year since 1945, when the American Gas Association started publishing official estimates. At the beginning of 1957, such reserves achieved a new high level of 237.8 trillion cubic feet, an increase of 14.1 trillion cubic feet over reserves of 223.7 trillion cubic feet a year earlier, it was announced in a joint report of the Committee on Reserves of the American Gas Association and the American Petroleum Institute.

Extensions and revisions of previous estimates, and new discoveries of natural gas in 1956 once again exceeded production which attained a new peak of 10.9 trillion cubic feet. This record production of natural gas was about 800 billion cubic feet more than the previous record of 10.1 trillion cubic feet of natural gas used in 1955.

The A. G. A. Committee on Natural Gas Reserves estimated that proved recoverable reserves of natural gas liquids had increased at the year-end to total 5.9 billion barrels. This represented a gain of about 463.8 million barrels during 1956 compared with a gain of about 194.1 million barrels in reserves in the previous year. The production of natural gas liquids during 1956 totaled 346 million barrels as compared with 320 million barrels produced in 1955.

New discoveries of natural gas reserves in 1956 totaled 5.6

trillion cubic feet, compared with 5.7 trillion cubic feet of new reserves brought in during 1955. Extensions and revisions of previous estimates during 1956 added 19.2 trillion cubic feet to reserves. Such extensions totaled 16.3 trillion cubic feet a year earlier. Nearly 134 billion cubic feet of natural gas were added to estimated reserves in underground storage in 1956.

Crude oil reserves on December 31, 1956 totaled approximately 30.4 billion barrels, compared with 30.0 billion barrels at the end of 1955, also a new record. The total estimated liquid hydrocarbon reserves on December 31, 1956 were 36.3 billion barrels, compared with 35.4 billion barrels a year earlier.

Table 3 (on page 6) is a summary of the Committee's annual estimates of proved natural gas reserves for the past 12 years, reflecting the changes in the natural gas reserve position in the United States during each of the 11 years since December 31, 1945. Table 4 shows the proved natural gas liquids reserves of the United States for the last 11 years, and the changes which have taken place in these reserves annually since the first estimate was made as of December 31, 1946.

In order to arrive at an estimate of the total proved liquid hydrocarbon reserves in the United States, the reserves of natural gas liquids shown in Table 2 have been added to the reserves of crude oil estimated by the Committee on Petroleum Reserves of the American Petroleum Institute. The total liquid hydrocarbon reserves are shown in Table 4 of the report of the Committee on Petroleum Reserves.

The Committee has continued the practice, begun in the report of December 31, 1948, of reporting the volume of gas in underground storage reservoirs. Since December 31, 1953, these figures have been based on data furnished by the Committee on Underground Storage of the American Gas Association. Prior to the report of December 31, 1953 the native gas remaining in a storage reservoir when injection began was classified and listed, for the most part, as a non-associated natural gas reserve and was not included in the underground storage figure.

Beginning with the December 31, 1953 report, all gas, including native and stored gas, is included in the underground storage figures. Adjustments in, withdrawals from, or additions to storage are included in the figures shown under the heading "Net Change in Underground Storage." Changes in underground storage are excluded from the column headed "Net Gas Production." Net gas production is the gross production from producing reservoirs less that gas returned to

## COMMITTEE ON NATURAL GAS RESERVES

N. C. McGowen (Chairman), United Gas Corporation  
R. M. Bauer, Southern California Gas Company  
Wm. F. Burke, Lone Star Gas Company  
M. M. Fidler, Mountain Fuel Supply Company  
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E. D. Pressler, Humble Oil and Refining Company  
E. E. Roth, Columbia Gas System Service Corporation  
J. T. Scopes, Union Producing Company  
C. E. Turner, Phillips Petroleum Company  
Warall J. N. Whipple, Southern Natural Gas Company  
Daniel Parson (Secretary), American Gas Association

producing reservoirs in cycling and repressuring projects.

In view of the great diversity of pressure bases specified by different jurisdictions throughout the United States, attention is drawn to the fact that natural gas reserves estimates published in this and previous reports of this Committee have been based on standard conditions of 14.65 psia and 60 F.

The Committee wishes to point out that it is often not possible to estimate the total reserves of a field in the year of its discovery. Satisfactory estimates can be made only after there has been sufficient drilling in the fields and, in some cases, adequate production history established. For these reasons, the reserves listed as discovered during any current year must be considered only as the reserves indicated by the drilling in that year. The reserves of all fields and pools are reviewed and revised upward or downward in each succeeding annual report to reflect additional information on preceding estimates. These changes are shown as "Extensions and Revisions."

The procedure followed in estimating and assembling the proved reserves figures is the same as that used in the past reports. A proved reserve may be in either the drilled or un-

drilled portion of a given field. When the undrilled area is considered proved, it is so related to the developed acreage and the known field geology and structure that its productive ability is considered assured. Proved recoverable reserves of natural gas are those reserves estimated to be producible under present operating practices, with no consideration being given to their ultimate use.

Since the estimates are made by pools, the recovery factors or abandonment pressures used in the calculations are governed by the operating conditions in each individual pool. Proved recoverable reserves of natural gas liquids are those contained in the recoverable gas reserves subject to being produced as natural gas liquids by separators or extraction plants, now in operation, under construction or planned for the near future.

For purposes of developing reserve estimates, natural gas liquids are defined as those hydrocarbon liquids which are gaseous or in solution with crude oil in the reservoir and which are recoverable as liquids by the processes of condensation or absorption which take place in field separators, scrubbers, gasoline plants, or cycling plants. Natural gasoline, condensate,



## NATURAL GAS

	December 31, 1956	December 31, 1955 (Thousands of Cubic Feet)	Increase 1956 Over 1955
Reserves, Natural Gas	237,774,569,000	223,697,445,000	14,077,124,000
	1956	1955	
Production, Natural Gas	10,907,926,000	10,118,118,000	789,808,000

The production figures for 1956 are net after deducting the amount of gas returned to reservoirs for cycling and pressure maintenance.

## LIQUID HYDROCARBON RESERVES

RESERVES	December 31, 1956	December 31, 1955	Increase 1956 Over 1955
Crude Oil	30,434,649,000	30,012,170,000	422,479,000
Natural Gas Liquids	5,902,332,000	5,438,565,000	463,767,000
Total Liquid Hydrocarbons	36,336,981,000	35,450,735,000	886,246,000
PRODUCTION	1956	1955	
Crude Oil	2,551,857,000	2,419,300,000	132,557,000
Natural Gas Liquids	346,053,000	320,400,000	25,653,000
Total Liquid Hydrocarbons	2,897,910,000	2,739,700,000	158,210,000

(Thousands of Cubic Feet—14.65 psia, at 60°F)

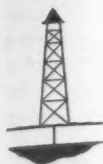
Total proved reserves as of December 31, 1955	223,697,445,000
Extensions and revisions of previous estimate during the year of 1956	19,214,604,000
New reserves discovered in 1956	5,636,476,000
Net changes in underground storage during 1956	133,970,000
Total proved reserves added and net changes in underground storage during 1956	24,985,050,000
Total proved reserves as of December 31, 1955 and additions during 1956	248,682,495,000
Deduct production during 1956	10,907,926,000
Total proved reserves of natural gas as of December 31, 1956	237,774,569,000

Reserves data are shown by states in Table 1



## NATURAL GAS RESERVES

**TABLE 1**  
**ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS IN THE UNITED STATES**  
(Millions of Cubic Feet—14.65 psia, at 60 Deg. F)



	Changes in Reserves during 1956					Reserves <sup>b</sup> as of December 31, 1956				
	Reserves as of Dec. 31, 1955 <sup>b</sup>	Extensions and Revisions <sup>b</sup>	Discoveries of New Fields and New Pools in Old Fields <sup>b</sup>	Net Change in Under-ground Storage <sup>c</sup>	Net Production <sup>d</sup>	Total (Columns 7 + 8 + 9 + 10, also Columns 1 + 2 + 3 + 4 less Column 5)	Non-Associated <sup>e</sup>	Associated <sup>f</sup>	Dissolved <sup>g</sup>	Under-ground Storage <sup>h</sup>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Arkansas	1,164,367	2,990	38,457	(-)-551	33,736	1,171,527	554,908	323,260	288,762	4,597
California <sup>i</sup>	8,892,950	258,495	76,317	11,264	487,793	8,751,233	2,164,272	2,058,459	4,462,694	65,808
Colorado	2,253,562	187,523	73,161	3,291	94,768	2,422,769	1,611,749	131,977	675,752	3,291
Illinois	233,565	2,574	1,395	7,180	25,009	219,705	5,535	500	186,026	27,644
Indiana	33,111	4,289	0	477	4,105	33,772	2,050	1,880	22,621	7,221
Kansas	16,293,080	1,652,569	195,316	3,042	577,750	17,566,257	17,022,526	146,698	340,400	56,633
Kentucky	1,262,270	46,051	7,600	1,681	72,000	1,245,602	1,161,206	0	62,617	21,779
Louisiana <sup>i</sup>	42,435,592	2,910,172	1,630,589	0	1,922,354	45,053,999	35,490,462	6,548,729	3,014,808	0
Michigan	325,874	4,562	15,377	27,995	12,022	361,786	45,596	20,680	61,418	234,092
Mississippi	2,608,340	(-)-29,648	43,592	1,273	220,231	2,403,326	1,627,795	500,852	272,464	2,215
Montana	719,719	6,094	718	438	30,618	696,351	549,031	36,203	80,336	30,781
Nebraska	203,421	39,174	8,182	0	25,375	225,402	121,487	12,608	91,307	0
New Mexico	18,584,912	5,222,559	340,232	(-)-33,116	641,880	23,472,707	17,052,725	4,694,721	1,673,733	51,528
New York	75,760	5,127	1,420	6,877	3,935	85,249	37,024	0	287	47,938
North Dakota	280,696	112,270	20,512	0	15,985	397,493	6,307	0	391,186	0
Ohio	809,874	39,845	6,390	29,225	31,727	853,607	532,226	0	37,960	283,421
Oklahoma	13,204,739	1,249,397	234,480	3,035	916,602	13,775,049	6,483,823	3,432,600	3,768,640	89,986
Pennsylvania	754,389	97,573	9,915	32,751	118,416	776,212	419,111	0	31,165	325,936
Texas <sup>i</sup>	108,287,548	6,944,630	2,829,100	2,423	5,334,951	112,728,570	70,801,507	25,580,088	16,329,920	17,235
Utah	420,896	170,461	46,949	0	18,520	619,786	546,361	19,075	54,350	0
Virginia	34,756	2,813	937	0	2,949	35,557	35,557	0	0	0
West Virginia	1,564,899	121,564	25,250	32,995	182,971	1,561,737	1,288,602	0	64,033	209,102
Wyoming	3,196,103	152,232	16,932	(-)-199	129,136	3,235,932	2,416,326	186,729	614,658	18,219
Miscellaneous <sup>a</sup>	57,022	11,288	13,655	3,889	5,093	80,761	56,727	0	19,225	4,809
<b>Total</b>	<b>223,697,445</b>	<b>19,214,604</b>	<b>5,636,476</b>	<b>133,970</b>	<b>10,907,926</b>	<b>237,774,569</b>	<b>160,032,913</b>	<b>43,695,059</b>	<b>32,544,362</b>	<b>1,502,235</b>

<sup>a</sup> Includes Alabama, Arizona, Florida, Iowa, Maryland, Missouri and Nevada.

<sup>b</sup> Excludes gas loss due to natural gas liquids recovery.

<sup>c</sup> The net difference between gas stored in and gas withdrawn from underground storage reservoirs. Inclusive of adjustments and native gas transferred from other reserve categories.

<sup>d</sup> Net production equals gross withdrawals less gas injected into producing reservoirs. Changes in underground storage and gas loss due to natural gas liquids recovery are excluded. Fourth quarter production estimated in some instances.

<sup>e</sup> Non-Associated Gas is free gas not in contact with crude oil in the reservoir; and free gas in contact with oil where the production of such gas is not significantly affected by the production of crude oil.

<sup>f</sup> Associated Gas is free gas in contact with crude oil in the reservoir where the production of such gas is significantly affected by the production of crude oil.

<sup>g</sup> Dissolved gas is gas in solution with crude oil in the reservoirs.

<sup>h</sup> Gas held in underground reservoirs (including native and net injected gas) for storage purposes.

<sup>i</sup> Includes off-shore reserves.

**TABLE 2**  
**ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES**  
(Thousands of Barrels of 42 U. S. Gallons)



	Changes in Reserves during 1956				Reserves as of December 31, 1956			
	Reserves as of Dec. 31, 1955	Extensions and Revisions	Discoveries of New Fields and New Pools in Old Fields	Net Production	Total (Columns 6 + 7 + 8, also Columns 1 + 2 + 3 less Column 4)	Non-Associated	Associated	Dissolved
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Arkansas	45,124	338	18	3,013	42,467	12,210	16,212	14,045
California <sup>a</sup>	324,941	16,548	663	30,424	311,728	0	96,117	215,611
Colorado	12,511	(-)-129	0	837	11,545	2,714	0	8,831
Illinois	18,457	464	92	2,241	16,772	28	2	16,742
Indiana	132	17	5	21	133	10	10	113
Kansas	173,236	2,111	1,944	5,676	171,615	166,380	1,374	3,861
Kentucky	8,675	291	145	1,860	7,251	7,251 <sup>e</sup>	0	0
Louisiana <sup>a</sup>	935,950	98,628	23,589	43,225	1,014,942	791,284	169,842	53,816
Michigan	872	178	134	116	1,068	228	103	737
Mississippi	57,876	(-)-215	1,421	3,079	56,003	29,729	20,552	5,722
Montana	6,857	1,550	0	262	8,145	0	0	8,145
Nebraska	6,436	436	183	551	6,504	4,859	735	910
New Mexico	342,207	84,574	2,489	15,171	414,099	283,464	51,781	78,854
Ohio	1,557	120	13	21	1,669	1,669 <sup>e</sup>	0	0
Oklahoma	354,354	26,131	5,963	30,860	355,588	116,937	58,398	180,253
Pennsylvania	3,024	178	89	124	3,167	3,167 <sup>a</sup>	0	0
Texas <sup>i</sup>	3,045,361	476,364	57,037	198,873	3,379,889	1,346,550	592,196	1,441,143
Utah	108	(-)-8	0	5	95	79	16	0
West Virginia	30,526	761	253	4,799	26,741	26,741	0	0
Wyoming	50,348	7,420	0	3,894	53,874	16,528	867	36,479
Miscellaneous <sup>b</sup>	20,013	7	18	1,001	19,037	18	0	19,019
<b>Total</b>	<b>5,438,565</b>	<b>715,764</b>	<b>94,056</b>	<b>346,053</b>	<b>5,902,332</b>	<b>2,809,846</b>	<b>1,008,205</b>	<b>2,084,281</b>

<sup>a</sup> Includes condensate, natural gasoline and liquefied petroleum gas.

<sup>b</sup> Includes Alabama, Florida, Missouri and North Dakota.

<sup>e</sup> Not allocated by types but occurring principally in the column shown.

<sup>i</sup> Includes off-shore reserves.

and liquefied petroleum gases fall in this category. While the liquids so collected and the products derived from them in some of the modern plants are known by a variety of names, they have been grouped together here under the general heading "Natural Gas Liquids."

The estimates presented in this report incorporate the results of carefully detailed studies of many hundreds of fields and pools throughout the United States. Their preparation has required the help and active cooperation of specially trained geologists and engineers familiar with developments in all producing areas throughout the country. The Committee is fortunate to have obtained the help of this group of men who have served as subcommittee members. As in past years, they have given generously of their time and efforts to make these estimates as complete and accurate as possible. The Committee expresses its appreciation to these men.

The Committee also acknowledges the helpful cooperation of the Committee on Petroleum Reserves of the American Petroleum Institute, on whose estimates of crude oil reserves the estimates of dissolved gas reserves are based, and the Committee on Underground Storage of the American Gas Association, who supplied the data on which the underground storage figures are based.

## NATURAL GAS LIQUIDS RESERVES

(Barrels of 42 U.S. Gallons)

Total proved reserves as of December 31, 1955 .....	5,438,565,000
Extensions and revisions of previous estimate during the year of 1956 .....	715,764,000
New reserves discovered in 1956 .....	94,056,000
Total proved reserves added in 1956 .....	809,820,000
Total proved reserves as of December 31, 1955, and new proved reserves added in 1956 .....	6,248,385,000
Deduct production during 1956 .....	346,053,000
Total proved reserves of natural gas liquids as of December 31, 1956 .....	5,902,332,000

Reserves data are shown by states in Table 2.

TABLE 3 SUMMARY OF ANNUAL ESTIMATES OF NATURAL GAS RESERVES  
FOR PERIOD DECEMBER 31, 1945 TO DECEMBER 31, 1956

(Millions of Cubic Feet—14.65 psia, at 60 deg. F)

Year	Natural Gas Added During Year			Net Change in Underground Storage	Net Production During Year	Estimated Proved Reserves as of End of Year	Increase Over Previous Year
	Extensions and Revisions	Discoveries of New Fields and New Pools in Old Fields	Total of Discoveries, Revisions and Extensions				
1945	—	—	—	—	—	147,789,367	—
1946	a	a	17,729,152	a	4,942,617	160,575,901	12,786,534
1947	7,570,654	3,410,170	10,980,824	a	5,629,811	165,926,914	5,351,013
1948	9,769,483	4,129,089	13,898,572	51,482	6,007,628	173,869,340	7,942,426
1949	8,061,429	4,612,870	12,674,299	82,746	6,245,041	180,381,344	6,512,004
1950	9,172,381	2,877,351	12,049,732	54,301	6,892,678	185,592,699	5,211,355
1951	13,013,606	3,039,385	16,052,991	132,751	7,966,941	193,811,500	8,218,801
1952	8,934,470	5,411,043	14,345,513	198,850	8,639,638	199,716,225	5,904,725
1953	13,371,355	7,081,661	20,453,016	516,431b	9,238,540	211,447,132	11,730,907
1954	4,632,309	4,966,894	9,599,203	90,906	9,426,509	211,710,732	263,600
1955	16,298,125	5,719,069	22,017,194	87,637	10,118,118	223,697,445	11,986,713
1956	19,214,604	5,636,476	24,851,080	133,970	10,907,926	237,774,569	14,077,124

a Not estimated.

b All native gas in storage reservoirs formerly classified as a natural gas reserve is included in this figure.

TABLE 4 SUMMARY OF ANNUAL ESTIMATES OF NATURAL GAS LIQUIDS RESERVES  
FOR PERIOD DECEMBER 31, 1946 TO DECEMBER 31, 1956

(Thousands of Barrels of 42 U. S. Gallons)

Year	Natural Gas Liquids Added During Year			Net Production During Year	Estimated Proved Reserves as of End of Year	Increase Over Previous Year
	Extensions and Revisions	Discoveries of New Fields and New Pools in Old Fields	Total of Discoveries, Revisions and Extensions			
1946	—	—	—	129,262	3,163,219	—
1947	192,237	59,301	251,538	160,782	3,253,975	90,756
1948	405,874	64,683	470,557	183,749	3,540,783	286,808
1949	294,211	92,565	386,776	198,547	3,729,012	188,229
1950	707,879	58,183	766,062	227,411	4,267,663	538,651
1951	648,497	75,494	723,991	267,052	4,724,602	456,939
1952	475,170	81,668	556,838	284,789	4,996,651	272,049
1953	648,047	95,922	743,969	302,698	5,437,922	441,271
1954	20,830	86,520	107,350	300,815	5,244,457	(—)193,465
1955	447,160	67,348	514,508	320,400	5,438,565	194,108
1956	715,764	94,056	809,820	346,053	5,902,332	463,767



# Push gas commercial cooling now



By L. OURUSOFF

Assistant to Senior Vice-President  
Washington Gas Light Company  
Washington, D. C.

**M**y topic, as you know, is part of a great panorama, and the various elements in it must be brought into focus in order that the gas air conditioning picture may acquire a perspective in time and place, in size and shape.

When I am asked about the size of the air conditioning market, my answer is "infinite, plus or minus 10 per cent."

This answer is just as significant to me as an elaborate forecast.

At any rate the national market for air conditioning, within three years, is estimated at between four and five billion dollars; the majority of it will be residential and more than half of that will be of the central type which should interest you because that's where gas will fit into the picture.

If manufacturers who produce gas air conditioning equipment are few in number it is not because the market is limited, but because the development of competitively priced residential gas cooling equipment is a very hard proposition indeed. On the other hand, commercial gas air conditioning equipment has already reached a high degree of marketability and in many locations it competes very successfully with the better types of electric equipment.

Let's take a look at those sales possibilities for commercial gas air conditioning and see how to translate them into realities.

Gas equipment of excellent quality is now available to accommodate every commercial establishment from a small beauty parlor to a giant shopping center or a skyscraper. In terms of available gas equipment, the capacity of individual absorption units ranges from three tons to 700 tons. Servel provides machines of 3, 5 and 25 tons, while Carrier covers a range from 60 to 700 tons.

The largest absorption installation in the northeast involves nine giant units for a total of some 6,300 tons. That's at Idlewild Airport. In addition to the absorption type of equipment, gas prime movers are being used quite extensively in regions where competitive natural gas rates exist for that kind of service.

In the northeastern part of the U.S. gas has intriguing possibilities, particularly in the medium-size field between 20 and 300 tons. The smaller gas units of three and five tons suffer a substantial first-cost competitive disadvantage, whereas in larger capacities, the cost dif-

ferential between gas and electricity is often a toss-up.

Recently in Washington, for example, a 100 ton Carrier absorption job was installed. Although the equipment was quoted \$1,000 higher than electrical equipment, the total cost of the absorption equipment, including installation, was almost \$4,000 in favor of gas. One reason was that an expenditure of \$5,400 would have been necessary for changes at the electric entrance panel and for a 40 foot electric conduit from the panel to the equipment.

Had a new electric service been required on that job, as may often be the case, the differential in favor of gas would have been still greater. Another factor in this picture is that the cost of the steam boiler used with absorption systems is not chargeable to cooling equipment, since it already is a requisite for the heating system.

Besides the question of first costs of equipment, absorption systems have important hidden advantages among which I shall mention suitability to roof installation. This liberates rentable basement space and permits elimination of chimneys, shafts, refrigerant lines and conduits.

All in all, the picture for commercial gas air conditioning is becoming increasingly bright. Let me stress, however, that a tremendous contribution must be made by gas utilities in two ways: first, by *impressing the facts of life upon the minds of consulting engineers and architects and, secondly, by acting as bird dogs for the equipment manufacturers.* They, in turn, should handle sales transactions, including engineering and contracting.

A matter not to be forgotten, of course, is operating cost. In order to compete with electricity at two to three cents per kwh (including demand and commodity charge) gas rates should range between seven and ten cents per therm, and to compete with #6 and #2 oil at nine and 16 cents per gallon respectively, gas rates should be between seven and 14 cents per therm. Similar, or lower, commercial gas rates are available in many, many regions of the U.S., and therefore nation-wide competitive prospects for commercial gas air conditioning are very good.

I realize that in New England, which is so distant from natural gas wells, rates may be higher than elsewhere. The question then arises, "What's to be done

(Continued on page 47)

Presented at Annual Meeting of New England Gas Association, Boston, March 22, 1957.



Lone Star's IBM section moved from second floor to spacious new fourth floor quarters allowing for future growth. This has aided in increasing the section's efficiency in Dallas metropolitan area customer service



## Lone Star accelerates service

Some time soon Lone Star Gas Company will be setting a new meter for its 200,000th customer in the Dallas metropolitan area. The date will be a milestone for Dallas distribution operations, currently accounting for 25 per cent of the total customers served by the Lone Star system.

During the past 10 years Dallas population figures doubled. So did Lone Star operations in this area. With no slowdown in sight, company officials are looking ahead with a continuing program of expansion to physical properties and additional streamlining of customer service methods.

In the next 20 years, say the experts, Dallas could well be the "home town" for a million and a half people. To meet the gas service requirements of such a

city, an automated system of operations will be essential.

For example, office handling of inter-departmental records is in the process of being highly mechanized by the use of automatic conveyor systems and teletype machines, the latter for transmitting service orders to the shop dispatchers.

A great simplification of basic requirements from customers is already being put into effect. It will take another year or more, say officials, to make the complete transition.

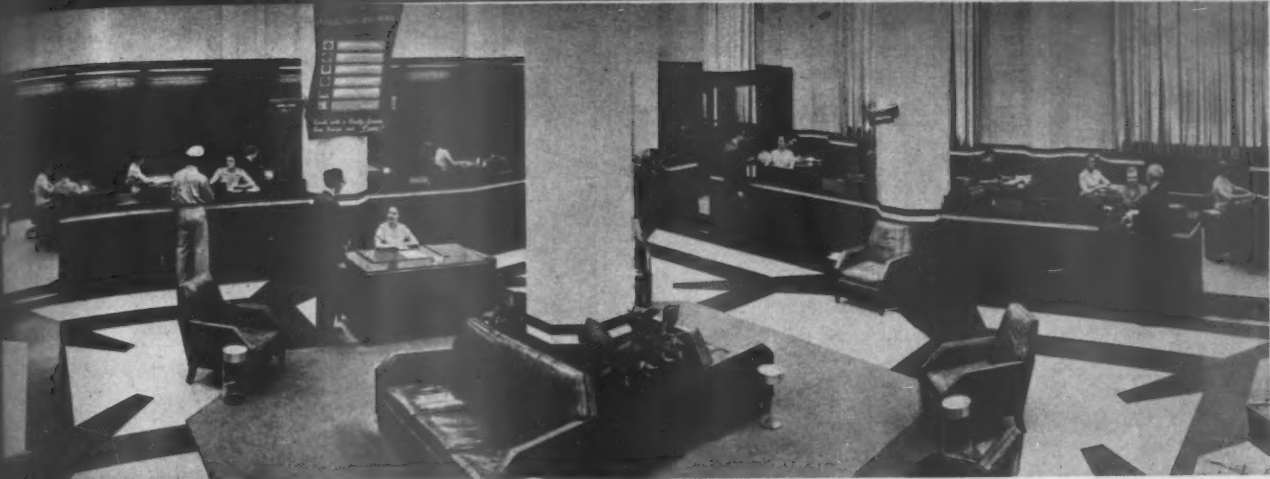
It is pointed out that the saving in time of even so much as one-half a minute per contact, when handling the service problems of 200,000 customers, is of vital importance in this accelerated operating program.

Streamlining of operations began sev-

eral years ago and includes the decentralizing of service facilities into three zones within the Greater Dallas area. Early in 1950 a North Dallas service center was put into operation. In 1952 an Oak Cliff service center was opened and in 1956 the old, original service center, built in 1923, was replaced with a new, modern Central service center to serve Central and South Dallas.

The continuing program has also established an almost complete circle of city gate stations around Dallas, bringing gas into the distribution system from major carriers tapping fields in East and West Texas and South-central Oklahoma. Six of these are major gate stations and six are smaller district stations.

Eighty-three radio-controlled service and construction fleet units provide a



Customer service section on Dallas division's main floor was redesigned to speed up handling direct customer contacts.

Behind counters at right and in background are "stations" where trained personnel process variety of service requests



Telephone service section, termed "nerve center" of Dallas' service operations, has been redesigned in horseshoe shape

to speed call handling. Operators have 25,000 current account records at desks and total of 1,500,000 located in the area

basic link in the framework of fast, dependable service for the growing city. Two base stations, KKI-820 and KKE-815, are located at North and Oak Cliff service centers with additional transmitters connected by telephone from both the street department headquarters downtown and Central service center. Any one of the fleet units or a multiple number of them in case of emergency, may be contacted in a matter of seconds.

Four service salesmen's cars, operating out of street department headquarters are also radio-equipped. Fast service is provided in expediting calls where new home construction or remodeling requires a change in gas service lines or meters.

Establishment of the company's new Oak Cliff customer office with a drive-in

payment window and designation of 40 neighborhood collection points in banks and super-markets are other steps in the program.

Consolidation of mail handling for all Dallas offices of the company by establishing a single, central mail room in the Jackson Street building, is another step in the simplification and streamlining of customer operations. Mail tubes to the cashier department will allow handling of mailed bill payments in one-third of the time formerly required, according to Dallas officials.

This is an important step in keeping accounts current and eliminating duplication of effort or customer inconvenience.

As mail is opened each morning, bill payments are tubed to the cashier section

mail clerks from where they are processed and tubed to IBM customer accounting in a continuous daily flow.

It is estimated that 65 per cent of all bill payments are received by mail. During the month of August, for example, 130,000 of approximately 197,000 bill payments were made in this manner.

Redesigning and modernizing of sales, home economics and commercial offices in Dallas division are a major part of the program of public service improvement to meet present and future requirements.

"Customer service is our No. 1 concern," said a Dallas division spokesman. "Although the refurbished and modernized customer area is much more pleasing to the eye, it also has a definite part

(Continued on page 41)

*Equipment and appliance editors  
attend GAMA's eighth annual Automatic  
Gas Range Conference in New York*

# Gas utilities partners with manufacturers

By RICHARD L. LEUSCH

*Assistant Sales Manager  
East Ohio Gas Company  
Cleveland, Ohio*

**M**y thesis is that we are a partnership, a selling team, to make the life of the homemaker easier and better.

Who are the members of our partnership? The gas range manufacturers—in fact, all gas appliance manufacturers—are a part of the team for obvious reasons. Without new improved products, we couldn't accomplish our purpose.

For reasons that are less obvious, you equipment editors are partners. Without your leadership in telling editorially and nationally the story of easier, better homemaking, without the pages of your publications to carry the ads that sell the virtues of modern living, the mass impression would be almost nil.

I am a partner because without my company's efforts on the local level fewer people in Northeastern Ohio would take the trouble to move toward the purchase of modern gas appliances.

Let me tell you how successful our

alliance is. Let me show you how we at East Ohio translate the leadership that you give us into hard-selling local campaigns.

East Ohio has 3,132 employees, 120 of whom are sales and advertising people. We are not a merchandising company—we do not sell appliances. Therefore, our method of operation is to find a way to help, as much as possible, dealers who sell the quality of appliances we are interested in having on our lines.

How do we help? We help with a generous application of people plus promotion. It's axiomatic that the more of both one can apply, the better the job is done.

Briefly, we employ about 20 sales contact people who make a constant round of calls on the 1,200 appliance dealers, plumbers, and heating contractors in our market area. It is the duty of this group to acquaint dealers with East Ohio campaigns, to aid manufacturer and distributor representatives in the promotion of gas appliances on the dealer level, to arrange cooperative advertising, to set up displays—to do anything that will help move gas appliances from a dealer's floor to a customer's home.

Our contact man's chief tool in his bag of aids of selling is East Ohio's year-



Margaret Spader, food and equipment editor of "Living for Young Homemakers," learns about Tappan 18,000 Blu top Burner from George Conley. Rachel 13 manufacturers exhibited their newest range sales

round cooperative advertising plan. Designed to promote the highest quality gas appliances *only*, it enables our salesmen to schedule tie-in dealer advertising with East Ohio paying one third of the bill. Dealers may, and do use all local media; newspaper, outdoor, television, radio, direct mail, car cards to promote approved gas appliances, under a set of stringent rules.

In 1956 almost half of all the dealers eligible bought, under East Ohio's plan, more than \$900,000 worth of tie-in advertising. At the same time, East Ohio, over its own signature, was telling locally the original consumer-benefits story and the general gas story that you were telling nationally.

Here's how our part of the partnership works: In July, 1956, we called together 14 manufacturer-distributors of matchless gas ranges to brief them about our plans for the fall. During the interval between the first planning meeting and the start of the campaign, East Ohio's home service department, equipped with "burner with a brain" demonstration kits, visited all the important dealer outlets to show range salespeople how the burner worked, and what it meant in terms of convenience.

By mid-September the plans had

An address given at the Eighth Annual Automatic Gas Range Conference, Barbizon-Plaza Hotel, New York, March 7, 1957.



Speakers at Eighth Annual Automatic Gas Range Conference were (l. to r.): Harold Leary, GAMA managing director; Herbert Luoma, GAMA's director of technical service; Rachel Reed, director of consumer services, the Borden Co.; R. L. Leusch, assistant sales manager, East Ohio Gas Co.; and Charles Clark of Ethyl Corporation



Approximately 200 persons in the audience were divided into teams of six for brainstorm session which produced more than 170 suggested ideas; the climactic six-minute finale closed the meeting

jelled; 11 manufacturers had indicated that they would cooperate in the campaign and we were ready to tell our story to the dealers. In a series of 40 meetings, in a two-week period—breakfast and lunch, all over East Ohio territory—we played to more than 1500 dealer salesmen. We used professional talent—two well-known television actresses armed with a professionally written 25-minute script to tell the story that you tell so well in print: "What does Mrs. Homemaker look for when she's buying a range?"

After relating the women's angle story, which we included, incidentally, in an effort to improve local salesmanship, an East Ohio sales executive then outlined the story of the matchless gas range—the "burner with a brain" promotion.

We indicated that we were running a seven-week campaign and spending \$125,000 to tell the story.

We told them that we were buttressing the national story with East Ohio matchless "burner with a brain" advertising in newspapers, outdoor, television, radio, car cards, on our own trucks, in our lobbies, on our postcard bills. This combination, we felt, would pack enough impact to really sell our customers on

the idea of the top burner heat control.

However, the what-where-how-when of the promotion still remained to be answered. Assuming that between us we had sold the story of consumer benefit, the task still was only partly finished; the job of making a specific product offering still remained to be done. We at East Ohio are firm believers that this is one of the most essential elements of any campaign.

So we made the price of manufacturers' participation the guarantee of tie-in advertising. We offered participating manufacturers listing in East Ohio newspaper ads, on postcard bills, in sales brochures; we offered them space in lobby displays, increased cooperative advertising allowances, qualification of their brands in sales prize contests—all of this only if the manufacturer guaranteed to run at least 160 inches of dealer tie-in advertising each week for the seven weeks of the campaign.

But, as in all campaigns, success or failure lies with the retail salesman. How would he treat the prospect? Would he tell our story as effectively as we felt we had fashioned it?

To insure success we put together a dealer package that we hoped would be sure-fire. For display, we offered free a

six-piece point-of-sale package, telling the virtues of "burner with a brain" gas ranges. We offered the services of East Ohio men to set up the displays and courted the help of participating manufacturers. In fact, we even ran a contest for our own salesmen, paying bonuses for making quotas and offering special prizes for the best-looking displays. As a result, 473 were placed in dealers' stores.

Even after you have brought the customer to the point of sale you still have a problem. Of course, it's the sales story. We tried to make sure that each gas range salesman would tell a gas range story and a good one, by the rather lavish use of a mystery shopper program.

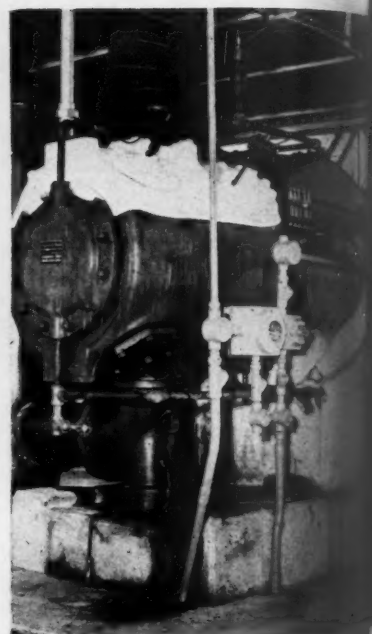
We retained a national shopping organization to visit gas range dealers about 700 times during the seven-week period. Only women shoppers were used. Some dealers were called on by a different shopper as many as three times during the campaign. Each time a salesman gave a matchless gas range or "burner with a brain" pitch, explained how either operated, did not switch to non-matchless or electric, and asked for the order he earned for himself a "survey fee" of \$5 to \$20.

The technique works like magic.  
(Continued on page 44)





Aerial view of 113-acre plant shows storage tank in background and refrigeration shed



Checking the lubrication on compressor in refrigeration shed is J. L. Knight, plant manager

# Atlanta Gas Light begins liquid propane storage

A \$2,000,000 propane-air mixing plant, the first of its kind in the United States, has just been added to the Atlanta Gas Light Company system near Riverdale, Georgia, 12 miles south of downtown Atlanta, R. G. Taber, president, announced.

The unique feature of the plant is storage of liquid propane by refrigeration rather than under pressure. By a process in which the propane acts as its own refrigerant, it is kept at minus 46 degrees F.

The low temperature is provided by a continuous three-step refrigeration cycle:

1. Propane vapor containing heat is removed from the tank and compressed to 200 pounds pressure.

2. The vapor is condensed to liquid with removal of heat by air cooled condensers.

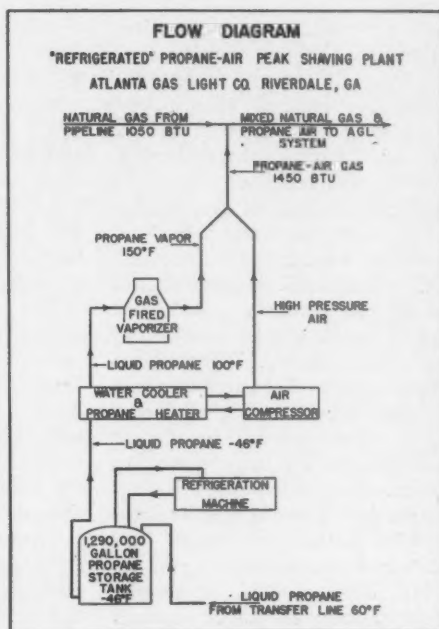
3. As produced in the process, the propane is vaporized and mixed with air. Although the process involves refrigeration, the Riverdale plant is not a refrigeration plant. Because of the special nature of the process, with the use of special safety precautions, even though the propane-air mixture is highly flammable, also the



plantage by refrigeration rather than pressure is first in nation



Heat exchanger (tubes at left) and separator (right) cool compressors in rear building. Insulated pipe brings liquid propane to heat exchanger, then vaporizer



Flow diagram of refrigerated propane-air peak shaving plant of the Atlanta Gas Light Company

3. As the liquid propane is re-introduced into the low pressure tank, it vaporizes and chills with the sudden release of pressure.

Although there is no new principle involved and there have been pilot refrigerated storage plants previously, the Riverdale plant is the first full operational use in the country.

Because of this, there was no safety code in existence for its construction and special research and study was required. With the cooperation of State Fire Marshal F. E. Robinson, however, necessary safety precautions were worked out.

Even though Atlanta Gas Light is primarily a natural gas system, such propane-air plants are essential as a supplemental source of gas on days of peak use. Also their use is important in maintain-

ing the low gas rates for this area which are among the lowest in the country.

During a recent cold spell the system set a record output of 450 million cubic feet of gas in one day. Most of this was natural gas piped in from the Gulf Coast and Southwest, but due to the extra heavy demand the natural product was supplemented by propane-air.

The steady growth of the 51 communities served by Atlanta Gas Light has required a continuous increase both in natural gas purchases and in propane-air plant construction. Since 1946 the natural gas purchases have tripled and the supplemental gas capacity has grown to a rated daily output of 100 million cubic feet. The completion of the Riverdale plant adds another 50 million capacity.

The addition will improve operations

not only in the Atlanta area but throughout the company's system.

Located on state highway 85, a mile south of Riverdale, the plant has little outward appearance of refrigeration. The temperature gauge on the 1,290,000 gallon storage tank shows it as well as the ice cap on the compressor in the refrigeration shed.

The plant was designed and constructed by Stone and Webster Engineering corporation of Boston. The plant was conceived by B. C. White, Stone & Webster project engineer. C. W. Robertson was construction superintendent and N. H. Sturgis was operating engineer, both also from Stone & Webster.

F. E. Neely of Atlanta Gas Light coordinated the construction work, and Marcus Peavy was construction assistant.

# Five home economists to judge 1957 Mrs. America contest

Five of the nation's best known home economists have been selected to judge the 1957 Mrs. America contest, it has been announced by W. W. Selzer, business promotion manager, Columbia Gas System, and chairman of the Mrs. America Committee.

These four home economists, along with three other judges—experts on personality, charm and stage presence—will determine the national winner from among finalists from 48 states and the District of Columbia. The national finals, where Mrs. America 1958 will be crowned, will be held at Fort Lauderdale, Fla., during the week of May 7.

In another important announcement, S. F. Wikstrom, A. G. A. coordinator of advertising and promotion, revealed that next year's contest will be sponsored by *Parents'* magazine. Mr. Wikstrom expressed the opinion that a magazine with the acceptance and standing of *Parents* among young mothers will be of great value to the gas industry's continuing promotion.

The number of gas companies sponsoring Mrs. America contests on local and state levels has increased again this year, Mr. Wikstrom said. At present, 131 member utility companies, representing 15,500,000 meters, are participating.

In extending invitations to the home economist judges, the Mrs. America committee sought a geographical distribution that would represent the varied parts of the nation from which the finalists will be drawn. From the Pacific Coast region is Dr. Gladys Stevenson, head of the home economics department at Whittier College, Whittier, Cali-

fornia.

Iris Davenport, woman's editor of *Farm and Ranch* magazine, will represent the south and southwest. Florence La Ganke Harris, food and equipment editor of the *Cleveland Press*, will represent the midwest. Isabel McGovern, director of the *Herald Tribune* Kitchen, New York City, will be the eastern representative, along with Louise Morgan, Boston radio and TV personality.

The three judges from the theatrical and art world will be Arthur William Brown, noted artist and illustrator; Russell Paterson, cartoonist and decorator; and Josephine Lowman, writer of the nationally syndicated column, "Why Grow Old?"

The judging this year will be conducted in a different manner than in the past. Those judges who are experienced home economists will select from the 49 finalists the six best homemakers. They will look for the best all-around homemakers, judging the contestants during the arduous tests they will under go for three days.

Then the other three judges will select from these six contestants—all top qualified homemakers—the one woman best qualified to represent the nation's homemakers for 1958. They will judge on the basis of her attractiveness, her bearing, her grooming, her ability to speak and think on her feet. Under this procedure the gas industry is assured of having the most personable, talented and attractive contestant as the industry's spokesman to all the Mrs. Americas of the country.

The entire format of the Mrs. Amer-

ica finals has been changed. Instead of living in individual villas, as in the past, the contestants this year will be housed and fed at the exclusive new Beach Club Hotel. They will have more time to relax and really enjoy their stay in Florida.

The competitions will be conducted over a three-day period at the city-owned auditorium, which will be open to the public for the first time since American Gas Association has been sponsoring the Mrs. America promotion.

These are the homemaking events in which the 49 contestants will compete in Florida:

**Menu Planning:** Each contestant must list menus for breakfast, lunch and dinner, plus recipes for the main dishes.

**Refrigerated Dish:** Each contestant must prepare a refrigerated dessert or salad.

**Chocolate Dessert:** Each contestant must prepare a cake or other dessert using chocolate.

**Meal Preparation:** Each contestant must prepare a complete meal featuring a meat main dish.

**Tablesetting:** Each contestant must set a table for a "special occasion."

**Sewing:** Each contestant must sew something on a sewing machine before the judges.

**Ironing:** Each contestant must iron a man's shirt.

Other competitions outside the homemaking field will be a DeSoto safe driving quiz, and a quiz on family savings. The latter is sponsored by the United States Treasury Department, Savings Bond Division, a new contest sponsor.

## Record number to attend SGA convention

DELEGATES and visitors are preparing to trek to New Orleans in record numbers for the 49th annual convention of the Southern Gas Association, to be held April 29-May 1 at the Roosevelt and Jung Hotels. Murray S. Hitchcock of Atlanta, Ga., general convention chairman, and C. B. Wilson of New Orleans, housing chairman, are preparing to accommodate even more than the 2,000 persons who set a record attendance for the 1956 meeting.

Highlights of the convention will be talks by C. H. Zachry, president of A. G. A., past president of SGA, and president of the Southern Union Gas Co.; Julius Klein, president

of the Gas Appliance Manufacturers Association and president of Caloric Appliance Corp.; G. Keith Funston, president of the New York Stock Exchange; Fred A. Hartley Jr., former Congressman and co-author of the Taft-Hartley labor law; Clayton Rand, editor and author; and Julia Meade of "Playhouse 90."

Top speakers from every part of the country will address delegates on such topics as accident prevention, accounting, distribution, home service, human relations, sales, and transmission. Allen D. Schrodt, director of the A. G. A. PAR Plan, will be present to outline PAR projects for this year.

## CGA jubilee meeting

THE Canadian Gas Association will hold its 50th annual meeting at Jasper Park Lodge in Jasper National Park, Alta., June 23-27. A full program of business sessions and entertainment has been planned for this jubilee year of the Association's founding in 1907. Those writing for reservations—\$35 for delegates, \$15 for their wives—should state whether or not they would prefer to go by a special chartered train leaving Toronto on Friday and arriving at Banff on Sunday, June 23. The special train will be chartered only if there are enough requests for it. The Canadian Gas Association address is 6 Hayden St., Toronto 5, Ontario.

*One responsibility of public utilities is  
to provide favorable working conditions for employees*

# Safety—every man's obligation

By ALEXANDER M. BEEBEE

*Chairman of the Board  
Rochester Gas and Electric Corp.*

The importance of "Safety" is indelibly impressed on my mind as a result of some bitter experiences which I hope others can avoid. I first started to work as a youngster in our company during summer vacation as a laborer in the underground department. When I left college I started work in the retort house side by side with employees of all races and creeds.

I have seen fellow employees killed or horribly burned from an exploding drum of sulphuric acid. I have been called out of bed in the middle of the night in zero weather with problems of frozen belt conveyors and countless other emergencies. As part of my job in younger years, after an accident I have on several occasions had to go into homes—on one occasion the night before Christmas to a family with two small babies—to bear the news of the death by accident of the breadwinner of that family.

It only takes one such incident to make one a confirmed addict on the subject of safety. This impression becomes indelible in one's memory when it is realized that some simple safety procedure in so many of the cases would have prevented the tragedy.

Later on I began to learn about corporation and management problems and tragedies. Perhaps these things—as much as any—make me appreciate the funda-

mentals of our American economy. It is therefore easy to expand this view into the basic incentives and motivations that make it work.

American industry, and especially the gas utility industry, have recently become aware of the fact that their two toughest problems have to do with public relations and employee relations. Most of the technical problems of industry are



"One accident... and you will become an addict of safety," says Rochester's A. M. Beebee

capable of definite appraisal and solution. Atomic energy is perhaps an exception, but otherwise I believe you will find it to be true.

However, public attitudes and employee attitudes are difficult problems not so easily or definitely dealt with. In recent years, management generally has become aware of what I call its "Four

Responsibilities," that is, its responsibility to its security-holders, to its customers, to its employees and to the community, and the need to see that these various responsibilities are properly balanced.

In years gone by when management felt that its sole concern was the interest of the security-holders, it soon became evident that such objective was jeopardized if the other responsibilities were not met. Lack of a recognition of the responsibility to employees led to the unionization of workers and poor productivity. A lack of concern of the interest of the consumer soon led to a loss of markets. An unhealthy attitude toward the community led to poor plant operation and worker morale. All of these results adversely affected the best interest of the security-holder.

I do not have to remind you that the days are over when progress is achieved by the use of fear and force.

These points apply with even greater emphasis in the case of public utilities which under our American way of life have certain other responsibilities.

First, a public utility has a responsibility to the shareholders who put up the money to build the company; secondly, it has a responsibility to the customers, to serve them at the lowest possible cost; and third, it has a responsibility to the employees, to see that they are provided good working conditions and a decent and healthy standard of living. Under such circumstances we can maintain a better grade of employees, which will enable us to give better and more efficient service to our customers at the lowest possible cost.

It is vital in the case of a public utility,

Excerpts from an address delivered at the A. G. A. General Management Conference, Edgewater Gulf Hotel, Edgewater Park, Miss., March 25, 1957.



whose earnings are regulated by the Public Service Commission, that a proper balance be maintained between these various objectives. If not, then the customers, the Public Service Commission and the community might feel that public interest is being disregarded, and the resultant retaliation could very definitely hurt the stockholders by forcing conditions that would not enable us to be fair to them.

There are many ways in which this retaliation could express itself, such as municipal ownership, oppressive regulatory procedures, political attacks, etc. It must be remembered that our earning power is entirely a function of what the Public Service Commission will allow. We are a monopoly, and for this privilege we must expect and welcome strict regulation as long as it is honest and not punitive.

I have recently been privileged to serve on the Board of an industry that must face the competitive threat of modern American enterprise. Believe me, it is a stimulating and interesting experience. Competition certainly keeps such an industry on its toes—constantly seeking economies, research and improvements in order to survive. Since we to a large extent are spared this drive, we must compensate for our privileges by being especially alert to meet our full responsibilities.

One of these responsibilities is safety—safety as it affects those who work with us as well as those we serve. Our safety record, I'm sure you will agree, depends on the kind of tools and equipment we use, the manner in which we develop and perform our operations, our housekeeping practices, our training programs, and the watchfulness of our safety committees. But I feel equally certain that it also reflects the degree of personal interest and concern shown by top management.

Probably our two biggest problems are first, to develop and hold the loyalty, interest and intelligent efforts of our employees, so as to render the best possible service to our customers; and second, to develop an understanding and sympathetic attitude by the public generally toward our industry and the service we render. The pattern flowing from these attitudes can determine whether our future is one of growth and importance, or one which can have very serious consequences.

Now let us see how the subject of safety fits into this situation. Employees of the right type to achieve the desirable objectives will shy away from an industry that is unnecessarily hazardous. Likewise, customers will shy away from patronizing an industry that creates an unfavorable impression, no matter how fine an effort is made otherwise in all

other phases of our operations.

As mentioned earlier, I have come up through the operating end of our industry and have learned one very important fundamental, as follows: that most of the serious accidents usually happen from a chain of unusual circumstances that happen to fit together. Our tragedy in Brighton a number of years ago had such a chain, one that you would think could not possibly happen.

To me, the great value of safety work lies not so much in what it seems to accomplish, but rather in the fact that the habits which it creates tend to interrupt the chain of events which so often leads to tragedy. Some simple safety procedures in so many cases would have prevented tragedy.

After such experiences, the subject of safety becomes a religion. And yet safety work is usually a relatively simple science, but primarily because it involves the human equation it becomes a most complex one. It is a subject that is primarily one of psychology.

I have had the privilege of reading the splendid paper on this subject by A. W. Conover last September at the Conference in Denver, as well as to read the most recent statistics on this subject in the industry. If you wish a real picture of this subject I urge you to read them. Briefly the data show over the past ten

(Continued on page 42)

## Meet your Association staff



Dolores Harrington

Glamorous kitchens resplendent with modern gas appliances don't appear in top national magazines by accident. It takes work with editors, work with gas appliance manufacturers, work with cabinet makers, and more just plain work.

Behind the scenes—kitchen scenes—doing this work are Kenneth F. Muldoon, manager of the A. G. A. New Freedom Gas Kitchen and Laundry Bureau, and his able assistant, Dolores Jensen Harrington.

Mrs. Harrington, who started with A. G. A. as a secretary in April 1949—five years after the Bureau was formed—was promoted to assistant last year. As an assistant, she pitches in on any work to be done in organizing kitchens and laundries. As Mr. Muldoon's assistant, she probably receives more phone calls than any other single person at A. G. A.

Who calls in a typical day? A cabinet manufacturer wanting stainless steel gas appliances for a display he

plans to set up at a national convention. The A. G. A. advertising agency requesting simulated oak cabinets for a national ad. A chemical company needing a gas kitchen to show their plastics in modern surroundings. An editor depending upon the Bureau to have a gas dryer delivered to Prairie Junction within two days.

Mrs. Harrington performs liaison duties between these groups and gas appliance manufacturers, coordinating these kitchens and laundries in the usually limited time involved. This necessitates keeping her mental file up-to-date on who is manufacturing what, today.

Mrs. Harrington's kitchen-mindedness carries over into her home. There she has a gas kitchen where she cooks and bakes to her heart's content. Her specialty? Eggplant parmesan. She's also sports-minded, enjoys playing golf with her purchasing agent husband—"We don't talk about our scores."

# Subcommittee prepares new TV commercials



Attending the Feb. 15 meeting of the TV Commercials Subcommittee were (l. to r.): Standing—Tony Pan, Ernest Hartman, Ralph Rosenberg, Daniel M. Daley Jr., Charles Gueffroy, F. H. Dettmar, Austin Stevens, Harry Cain, Subcommittee Chairman Thomas H. Evans, Herbert H. McMurray. Seated—Frederic H. J. Rider, Richard L. Leusch, Henry A. Kievenaar, Roy E. Wright, Norval D. Jennings, Thomas H. Lane, TV Committee Chairman Frank H. Trembly

The finest commercials I have ever done, said Julia Meade.

The best commercials we have ever produced, said M.P.O., producers of the commercials.

Attitude of viewers screened was approximately 50 per cent more favorable toward gas after commercials were viewed, said Schwerin Research Laboratories.

These are some of the glowing tributes paid the "Playhouse 90" gas commercial messages.

They fell on grateful ears as the hard-working TV Commercials Subcommittee met in New York recently to review the first commercial series and prepare the second series of commercials.

Chairman Thomas Evans, vice-president, Equitable Gas Co., told the subcommittee that he had reviewed scores of letters from participating companies and was impressed by the enthusiastic reception they had received.

Tom Lane, senior vice-president, Lennen & Newell (A. G. A.'s advertising agency) told the committee that professional television people had praised the commercials for their superiority.

Mr. Lane then introduced Christopher Sante, director of research for Lennen & Newell, who explained that while the TV Subcommittee had prepared the commer-

cials following exhaustive research, the agency had wanted the opinion of an impartial research organization in order to ascertain the public's reaction to them. The Schwerin organization was called in to conduct these tests.

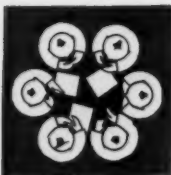
Mr. Sante described how the Schwerin organization operates. In the case of the gas commercials, 100 typical homeowners were invited to a theatre to preview a program. They were not informed that

(Continued on page 41)

## SCHEDULE OF A. G. A. COMMERCIALS ON "PLAYHOUSE 90"

Date	30 Seconds	90 Seconds	60 Seconds
March 7	Range	Omnibus	
14			Range
21	Water Heater	Range	
28			Laundry
April 4	Dryer	Range	
11			Water Heater
18	Dryer	Range	
25			Omnibus
May 2	Refrigerator	Range	
9			Range
16	Range	Institutional	
23			Refrigerator
30	Water Heater	Range	
June 6			Omnibus
13	Refrigerator	Range	
20			Laundry
27	Refrigerator	Range	
July 4			Refrigerator
11	Range	Institutional	
18			Water Heater
25	Refrigerator	Range	
Aug. 1			Omnibus
8	Range	Laundry	
15			Range
22	Dryer	Range	
29			Water Heater
Sept. 5	Refrigerator	Range	
12			Range
19	Range	Laundry	
26			Omnibus





# Industrial relations round-table

Prepared by

A. G. A. Personnel Committee

Edited by W. T. Simmons

Assistant to the Personnel Manager  
Philadelphia Electric Company

● Employers recruiting retired military officers through USES—A special program for the placement of retired military officers in private industry has been started quietly by the U.S. Employment Service with considerable success in an initial try-out in the District of Columbia USES office.

According to Arthur W. Motley, assistant director of the Bureau of Employment Security in charge of Employment Service, the Washington, D. C. USES office has made some placements of retired officers so far without any publicity attached to the program.

Military men may retire after 30 years of service with full retirement pay. Motley explains that this makes the average Annapolis or West Point graduate about 51 when he steps down.

The Navy has taken up the program in earnest. It presents a booklet to each officer about to retire, explaining availability of the USES program. Motley says the plan also is being studied by the Army and Air Force, which soon will publish and distribute similar informational booklets to retiring officers.

The program is looked on by Motley as a producer of excellent material for employers. However, he has some advice for interested employers whose policy is to bring up and train their own men for the executive positions retired officers are capable of filling. Those employers will have to look at the problem as an "entry executive proposition," he says.

Some of the men on the USES roster are retired naval captains, formerly commanders of aircraft carriers. These officers had as many as 1,500 men under their command, Motley points out by way of explaining the "entry executive" problem.

Interested employers are advised by Motley to put their queries to Fred Hetzel, director of the U.S. Employment Service for the District of Columbia, at 1724 F St., N.W., Washington, D. C. The queries should refer to the "Program for Placement of Retired Military Officers."

● Book about recognition of unions becomes "best seller"—The American Retail Federation has a best seller in its recently published booklet, "Retail Organization—Union Style," which tells employers what they may do legally to counteract unionization drives among their employees. So many requests have come in for the 25-page booklet that three reprints have been

necessary. About 10,000 copies have been distributed, at \$1 a copy.

Although the booklet is for retailers, orders are said to have come in from large manufacturers, some of them union and others non-union, from utility companies, and others in the business of providing services.

Some of those ordering have bought enough copies to give to all their supervisors, and others have wanted to check their own practices. The booklet had expert authorship—James G. Michaux, the Federation's labor relations counsel, and Thomas E. Shroyer, who was counsel to the Senate Labor Committee when the Taft-Hartley Act was passed and prior to that had been NLRB regional attorney in Cleveland.

The booklet tells employers what they can and cannot do under the Taft-Hartley Act at three stages of union organization activity—when the union first appears on the scene and before it makes its formal demand for recognition, between the demand for recognition and the time an NLRB election is directed, and between the direction of election and holding of the election.

The booklet pays close attention to NLRB and court rulings. One of its chief features is a lengthy list of the things an employer may say to his employees—preferably in writing—about the union and his attitude toward it before the election is held. These all come from "free speech" decisions of the Board and courts.

● NLRB rules sound truck, heard in plant, violates speech rule—On another question in connection with its ban on company-time speeches made to employees within 24 hours of a representation election, the NLRB decides the rule will apply to a sound truck whose message from outside a plant can be heard by workers inside.

The sound truck was used by Local 522 of the Teamsters within 24 hours of an election at the Staten Island, N. Y., plant of the United States Gypsum Company.

Since the message from the truck could be heard within the plant while workers were on the job, the company contended its use was a breach of the 24-hour rule. The Board agrees unanimously.

The rule was established in the Peerless Plywood case. It provides that an election will be set aside by the Board "whenever employers or unions make election speeches on company time to massed assemblies of employees within 24 hours before the scheduled time for conducting an election."

But the Board decides that (1) even though this was not a face-to-face speech by the Teamsters, the address from the sound truck could be heard "during working hours at locations in the plant where a number of

employees were stationed," (2) even though the employees did not constitute a "massed assembly" in the usual sense of the phrase in connection with a speech, the employees were not isolated but were working close to one another, and (3) the Teamsters "in a planned and systematic fashion directed its campaign speeches at the employees during the entire day before the election."

The election is set aside, and a new vote ordered. In the original vote, the Teamsters received 194 votes out of 399 cast. The United Union Workers of United States Gypsum Company, independent, received 79, the United Paperworkers of America got 111, and nine ballots were "no union." Under other circumstances the results would have called for a run-off vote since none of the unions received a majority.

● New rule on back-pay—A shift in change in NLRB policy often draws fire from several sources. However, it is unlikely that any employers will quarrel with the Board's decision that an illegally discharged employee must do more than merely register at an employment agency, in order to be entitled to an award of back-pay (American Bottling Co.).

In the past the old rule of the Board was more generous with the money of an employer whom it found in the wrong. For years it held that registration with a U.S. Employment Office, or its state equivalent, was "conclusive evidence that a reasonable search for employment had been made." Thus a discriminatorily discharged employee could simply register at the appropriate agency and then if no desirable position was available, await the day when the NLRB would order him reimbursed in an amount equal to that which he would have earned had he been working. The Board would not even subtract the unemployment compensation received during the interim.

Now, however, the Board says that something more is required. It holds that a condition precedent to any award of back pay is "due diligence" on the part of the discharged employee to find other work. And the Board makes it plain that "due diligence" means more than just registering with a government agency. It denied back-pay to a discriminatee who registered at the state employment agency and applied there for work two or three times a week for about two weeks, and who also applied at the Common Laborer's Union an unspecified number of times over a two-week period. Because he did not look elsewhere (among private employers), the Board concluded that he "did not make a reasonably diligent search for interim employment and thus incurred a wilful loss of earnings during the period of his idleness."

# Research program is outlined



H. P. Morehouse is in charge of 1957 Conference Committee



Dr. R. L. Smith will address the conference on Wednesday



Marvin Chandler represents gas industry in talk May 7



Julius Klein, president of G.A.M.A., is keynote speaker

The 12th Annual American Gas Association Research and Utilization Conference will be held at the Hotel Carter in Cleveland, Ohio, May 7-9, 1957.

This conference, the only national meeting of its kind, is of special interest to gas industry executives, as well as to utilization, service and sales personnel of both gas companies and manufacturing concerns.

The program this year, which by popular request has been extended from the usual two days to three, will cover a broad range of research activities and utilization practices. Of especial topical interest, however, will be a full afternoon's discussion of advances in gas air conditioning and a demonstration of the latest models of smokeless and odorless gas incinerators.

The annual conference, held under the auspices of the PAR Plan, is sponsored by the A. G. A. Committee on Domestic Gas Research and the A. G. A. Utilization Bureau. The committee responsible for arranging this year's broad and diversified program is headed by H. P.

Morehouse, Public Service Electric and Gas Co., Newark, N. J.

The opening address on Tuesday morning, May 7, which is expected to set the keynote for the three days, will be given by Julius Klein, president, Gas Appliance Manufacturers Association, and president of Caloric Appliance Corporation.

Two speakers, one from within the gas industry and the other from outside, will address the luncheon meetings on Tuesday and Wednesday. Marvin Chandler, president, Northern Illinois Gas Co., will be the speaker on Tuesday. Dr. Raymond L. Smith, associate director of The Franklin Institute, Philadelphia, will address the Wednesday luncheon meeting.

The discussion of gas air conditioning, scheduled for Tuesday afternoon, will be opened with a report on the status of the continuing program under the aegis of the Task Group for Air Conditioning. The chairman of this task group, Leon Ourusoff, Washington Gas Light Co., will give the report and pre-

side at the session.

A discussion of a critical survey of the absorption cycle of gas air conditioning undertaken by the Institute of Gas Technology will be led by Dr. R. T. Ellington, IGT. The heat pump, which has been under study by the Arthur D. Little organization, will be the subject of a paper by T. S. Bacon, Lone Star Gas Company. Mr. Bacon's own company has been investigating aspects of this subject and he is expected to reveal some of the company's conclusions.

Jet gas air conditioning is being investigated by the Stanford Research Institute; Dr. Channing W. Wilson will discuss this subject. The Southwest Research Institute has been experimenting with adaptations of the absorption cycle, as Martin Goland of that organization will explain.

The gas incinerator demonstration will be held on the final afternoon of the conference, with Dr. F. E. Vandaveer, The East Ohio Gas Co., presiding. An explanation of the new incinerator approval requirements and their purpose

will be given by George M. Nash, Central Hudson Gas and Electric Company. The demonstration of the new units will be conducted by Walter B. Kirk, A. G. A. Laboratories.

Among the other topics of the three-day conference will be a discussion of highlights in cooking research, given by Otto B. Vogel, Boston Gas Company. Following his talk, a "clinic" will discuss some of the problems confronting all segments of the industry now that complete automatic ignition for approved gas ranges will soon be a reality. George Douglas, Union Gas Company of Canada, Ltd., will be moderator. Representatives of range manufacturers, control manufacturers and gas utilities will be heard. They are, respectively, James Graham, Standard Enameling Co.; Arnold Hanson, Robertshaw-Fulton Controls Co.; and H. W. Nicholson, Public Service Electric and Gas Co., Newark.

The Wednesday morning session, with Mr. Morehouse in the chair, will open

with a specific account of how A. G. A. research has paid off in terms of a single gas company. The company is Minneapolis Gas Co.; the speaker will be George B. Johnson of that company.

Other Wednesday morning speakers will discuss servicing problems of heating equipment, developments in quality control in automatic production with Charles Wood, Whirlpool-Seeger Corp., speaking; and experiences in the use of low Btu and/or non-aerated pilots, discussed by Paul Kraemer, Minneapolis Gas Co., and Arthur Stack, Washington Gas Light Company.

K. T. Davis, Carrier Corp., will discuss the latest developments in approval requirements to open the Wednesday afternoon session. Guy Corfield, Southern California Gas Co., will be presiding.

Also scheduled for Wednesday afternoon is discussion of flame characteristics of slotted and drilled burner ports, with James Griffiths, A. G. A. Labora-

tories, speaking. A clinic discussion of what's new in venting research and field application will be moderated by W. K. Sheppard, The Peoples Natural Gas Company. Dr. Vandaveer will give the utility viewpoint; a manufacturer—South Wind Division of Stewart-Warner Corp.—will be represented by F. A. Ryder.

The results of rigorous tests of gas and electric refrigerators conducted by Public Service of New Jersey will be discussed Thursday morning by Mr. Morehouse. This session, with L. J. Wagner, Consolidated Edison Company of New York, presiding, will also hear discussions of gas water heaters. L. T. Tegler, A. O. Smith Corp., will report on a high speed table water heater, while aspects of water heater corrosion research will be the topic of Dr. R. C. West, Case Institute of Technology.

A report on new and improved instrumentation now available to gas engineers, by Dr. S. Weil of IGT, will conclude the Thursday morning session.

## Oates will become president of Equitable Life



James F. Oates

the insurance organization on June 1. He has been a director of Equitable Life since 1955.

Following a highly successful law career,

**JAMES F. OATES JR.**, since 1948 chairman of the board of The Peoples Gas Light and Coke Co., Chicago, has been named chief executive officer of the Equitable Life Assurance Society of the United States. Mr. Oates will become president of

Mr. Oates joined Peoples about a decade ago as chairman and chief executive officer. In this capacity, he directed the substantial expansion at Peoples.

He also served actively in the American Gas Association. He was chairman of A. G. A.'s PAR Committee in 1953 and 1954, a director of the Association from 1952 through 1956, and a member of its advisory council.

Mr. Oates earned a bachelor's degree from Princeton University and a law degree from Northwestern University. He saw military service in World War I, and served as chief of purchase policy in the office of the Chief of Ordnance during World War II.

## Wise joins A.G.A.

**FRANK WISE** has been appointed to the staff of the American Gas Association as assistant to Curtis Morris, manager of the Washington office, 729 15 St. NW, Washington 5, D. C. Mr. Wise has been a trade association officer for more than 20 years, most recently as executive secretary of the Trade Associations Coordinating Committee on Government Competition. Previously he served 19 years as secretary-treasurer of the National Renderers Association, with headquarters in Washington. He is a graduate of the University of Maryland, and a member of the American Society of Association Executives.

## SGA holds accident prevention round-table conference

**A SOUTHERN GAS ASSOCIATION** accident prevention round-table conference was held in Birmingham, Ala., on Jan. 25. James A. Hickey, Atlanta Gas Light Co., served as the sponsor of the meeting. Thirty-seven representatives of 24 companies attended.

The general session included discussions of training films for the natural gas industry; the problem of communicating with employ-

ees stationed over a wide range of area; leakage survey program; use of propane gas and how it is handled in running dew point or moisture tests; education of the public in the safe operation and utilization of gas burning appliances.

The afternoon portion of the conference was divided into separate distribution and transmission sessions. Chairman of the latter session was G. V. Atkinson, Trunkline Gas

Company.

Subjects under discussion included: eye protection; cleaning solvent or degreaser; noise abatement; and use of solvents in compressor station inspection of air-operated hoists.

Mr. Hickey also conducted the discussion at the distribution session at which a number of subjects pertinent to the operations of distribution companies were considered.

## Vocational guidance group guests of East Ohio Gas and A.G.A.

**THE OPERATIONS** of the American Gas Association and the role formal education plays in the ever-expanding natural gas industry were outlined to 150 members of the Northeastern Ohio Vocational Guidance Association at a recent dinner meeting in Cleveland.

The East Ohio Gas Company and A. G. A. served as hosts to members of the group which

represents guidance counselors, and school and industrial placement directors.

Bruce A. McCandless, assistant managing director of A. G. A., outlined some of the materials A. G. A. has developed for personnel placement work. Robert W. Ramsdell, executive vice-president of East Ohio, discussed the industry's continuing need for well-trained personnel and the cooperative effort of school,

placement agencies and industry. Frank E. Hodgdon, director of A. G. A. Laboratories, acted as master of ceremonies and outlined the relationship between A. G. A. and the members of the natural gas industry.

Tours of both the A. G. A. Cleveland Laboratories and East Ohio laboratories were conducted as part of the program for the vocational guidance group.



Discussing Equitable Gas campaign for installation of laundry-rated gas water heaters are (l. to r.): H. S. Leech, Ruud; G. W. Turner and R. C. Harrison, Equitable; and Albert Singer, Pittsburgh builder

# Push sales on water heaters



By G. W. TURNER

*Manager of New Building and Air Conditioning Promotion Equitable Gas Company Pittsburgh, Pa.*

Campaigns to sell the advantages of quality as well as quantity gas appliances have paid off for the Equitable Gas Company of Pittsburgh.

One of the fields in which a campaign has been waged is in the field of water heaters and especially in the new building field where the upgrading of the usual water heater installation is certainly attractive. Through a planned program of contacting speculative builders and private owners who have contracted for the construction of new homes, we have been successful in sharply increasing the number of new homes equipped with quality "laundry-rated" or "family-rated" automatic storage gas water heaters.

The dividends to Equitable have come in the enthusiastic satisfaction of the customer in having sufficient hot water at proper temperature for his every requirement. There are these specific benefits:

1. There has been a sharp reduction in the number of customer complaints about rusty and inadequate hot water, which generally was blamed on the fuel.
2. Correspondingly, there has been a reduction in the need for service calls.
3. Relations generally with customers

and builders have been vastly improved.

4. The availability of superior hot water service assures increased use.

Generally, a private owner readily realizes the necessity of providing for the automatic clothes washer, the dishwasher and the increased general use resulting from larger families and multiple bathrooms. It is only necessary that the new building representatives see the new home owner before an inferior water heater is purchased and installed.

But how do you go about convincing a speculative builder, who has an eye on costs, that it is wise to equip his houses with quality gas water heaters, rather than with the cheaper variety?

## Staff of five

The program is now nearing the end of its third year. A special staff of five experienced men comprises our "new building" representation. Their job is to contact the 200 home builders in our service area, as well as the real estate agents who work with these builders.

Stressing the competitive advantages of a house fully equipped to meet all requirements, our representatives make liberal use of manufacturers' literature.

For instance, we utilize facts supplied by Ruud Manufacturing Co., a manufacturer of gas water heaters, in stressing the point that one of the prime reasons for laundry-rating is the modern automatic clotheswasher. Over 16 million automatic clotheswashers are in use right

now, washer authorities say, and by 1960 there will be over 20 million.

The modern laundry-rated gas water heater meets the consecutive-load requirements of the automatic clotheswashers. And, having the high capacity to supply this critical key need, this same unit can easily fill all general-purpose requirements (bathing, shaving, etc.) of houses with one and one and one-half bathrooms.

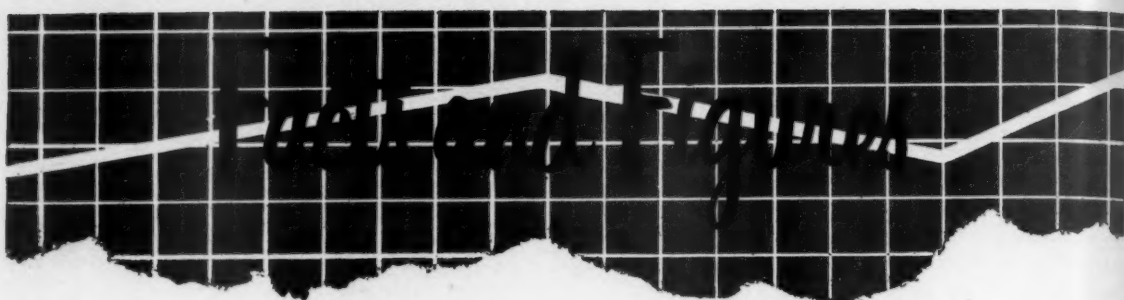
It is just as good business, our representatives tell the builder, to install water heaters capable of meeting the full hot water load as it is to install floor joists capable of meeting the load required of them.

Lending a valuable assist to our program is the national New Freedom Gas Laundry Contest sponsored by the American Gas Association and the Colgate-Palmolive Company. Stressing the advantages of gas laundry equipment, this program is being repeated during February, March, and April of 1957 after great success in 1956.

While the contest embodied in the program is directed primarily at consumers, its publicity benefits spill over to the home builders and home buyers. It ties right in with our project in that it stresses the value of full, quality home laundry equipment, including the laundry-rated gas water heater.

An added element aiding in our upgrading campaign is a series of dinners for builders, their wives, their salesmen, and their real estate agents. The guests

(Continued on page 43)



Prepared by A. G. A. Bureau of Statistics

**SALES OF GAS AND ELECTRIC  
RESIDENTIAL APPLIANCES DURING FEBRUARY, 1957**  
(WITH PER CENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	February, 1957		January, 1957	
	Units	Per Cent Change	Units	Per Cent Change
<b>RANGES</b>				
Gas	150,800	-15.5	138,400	- 9.8
Electric	n.a.	n.a.	116,600	- 7.4
<b>WATER HEATERS</b>				
Gas	208,100	-19.7	214,900	-10.1
Electric	n.a.	n.a.	56,300	-18.6
<b>GAS HEATING</b>				
Furnaces	45,300	-11.2	53,100	- 6.5
Boilers	5,200	+ 6.1	5,200	- 3.7
Conversion Burners	5,900	-29.8	7,300	- 7.6
Oil Fired Burner Installations	39,628	-15.5	46,370	-15.8
<b>DRYERS</b>				
Gas	n.a.	n.a.	36,670	-13.7
Electric	n.a.	n.a.	107,960	-12.8

**GAS SALES TO ULTIMATE CONSUMERS  
BY UTILITIES AND PIPELINES DURING JANUARY, 1957**  
(MILLIONS OF THERMS)

	1957	1956	Per Cent Change
<b>Month of January</b>			
All types of Gas	8,812.7	8,392.5	+ 5.0
Natural Gas	8,497.1	7,934.0	+ 7.1
Other Gases	315.6	458.5	-31.2
<b>Twelve Months Ending January 31</b>			
All types of Gas	74,096.4	68,264.3	+ 8.5
Natural Gas	71,003.2	64,708.1	+ 9.7
Other Gases	3,093.2	3,556.2	-13.0
<b>January Index of Monthly Utility Gas Sales (1947-49 = 100)</b>	251.8	239.8	+ 5.0

**PERTINENT BUSINESS INDICATORS, JANUARY**  
(WITH PER CENT CHANGES FROM CORRESPONDING PERIOD OF THE PRIOR YEAR)

	January			December		
	1957	1956	Per Cent Change	1956	1955	Per Cent Change
Industrial activity (1947-49 = 100)	146p	143	+ 2.1	147	144	+ 2.1
Consumer prices (1947-49 = 100)	118.2	114.6	+ 3.1	118.0	114.7	+ 2.9
Housing starts, Non-farm (thousands)	65.0	75.0	-13.3	64.0	76.2	-16.0
New private construction expenditures (\$ million)	2,185	2,176	+ 4.1	2,472	2,435	+ 1.5
Construction costs (1947-49 = 100)	157.1	150.2	+ 4.6	156.3	149.3	+ 4.7

p. Preliminary.  
n.a. Not available.

An additional chart appears on page 45

Gas utility and pipeline construction expenditures during the fourth quarter of 1956 totaled \$425 million, down 7.2 per cent from the \$458 million spent in the same quarter a year ago but up 5.2 per cent over the third quarter 1956 expenditures. Total estimated construction expenditures for 1956 hit a record \$1,504 million.

Preliminary first and second quarter 1957 construction expenditures are budgeted in the amounts of \$477 and \$546 million respectively. Total 1957 estimated construction expenditures is \$1,933 million, 28.2 per cent higher than 1956 expenditures.

Information on past and anticipated construction expenditures, by quarters of the year, is supplied regularly to the Securities and Exchange Commission by gas utilities and pipelines with securities in the hands of the public. Summaries of such data by SEC have been adjusted to provide an indication of quarterly construction expenditures by the entire gas industry.

Total operating revenues of the gas utility and pipeline industry (including both pipeline sales for resale and distribution company sales to ultimate consumers) reached a new all-time peak of \$5,900 million in 1956, up 12.6 per cent over the \$5,239 million in 1955.

Net income rose from \$524 million to \$597 million for an increase of 13.9 per cent over 1955. Tax accruals in this period were \$780 million, up \$89 million over the 1955 total for a 12.9 per cent increase. Federal income taxes, accounting for nearly 61 per cent of total taxes, showed an increase of \$51 million for the year, up 12.1 per cent over 1955. Taxes represented 13.2 per cent of total operating revenues, unchanged from a year ago.

The decline in home building starts registered during the past year continues  
(Continued on page 45)



# Gas rate changes are released

The Rate Committee of the American Gas Association has just released the final results of its ninth consecutive annual compilation of gas rate changes which were instituted during 1955.

Replies to the 1955 questionnaire were received from 130 utilities reporting 108 over-all increases and 48 over-all rate reductions. The actual number of changes instituted during the year were somewhat larger as certain companies did not respond to the request for information. However, as the majority of such changes were extremely minor in nature and the effect upon customers and revenues was negligible, the data reported below may be regarded as valid indicators of the magnitude of gas rate changes.

Seventy-four companies submitting complete data reported increases amounting to \$51.8 million and affecting nearly 9.1 million consumers, while 32 companies reduced their rates to nearly 1.3 million customers by \$7.5 million. As in previous rate change reports, the following data do not reflect the effect of changed rates imposed by modifications in the effective level of existing automatic adjustment clauses. They do include the appropriate data in situations where such an automatic clause has been newly instituted or completely deleted.

The accompanying tables present the number of rate changes yearly and the trend of rate changes for those companies reporting these statistics, annually since 1947.

During 1955, the number of customers affected by rate changes nearly reached the peak established in 1953. The reported \$51.8 million granted in rate increases and the \$7.5 million in rate reductions were the third largest of the post war era. Included in the above data for 1955 are 13 larger companies involved in 16 rate cases which accounted for 80 per cent of the dollar value of increases, and affecting 85 per cent of the

customers faced with higher rates. Similarly, four companies accounted for 61 per cent of the decreases and 53 per cent of the customers benefited by rate reductions.

The principal element responsible for upward revision of gas rates continues to be the increased cost of gas from pipeline suppliers which reflects increased field prices of natural gas due to higher exploration costs, increased transmission

costs and the ever increasing demand of consumers for more gas. Other factors governing distributors' applications for rate adjustments are higher labor charges and a greater tax burden.

Institution of lower rates were promotional attempts to widen the use of gas, chiefly for residential househeating. In some instances, reductions accompanied lower rates charged by pipelines as a  
(Continued on page 43)

## SUMMARY OF GAS RATE CHANGES REPORTED BY PRIVATELY OWNED COMPANIES DISTRIBUTING NATURAL GAS DURING 1955

Reason for Change	Times Reported	Manner of Effecting Change	Times Reported
Change in cost of gas from supplier	83	Varying change in price	75
Change in labor cost	21	Change affecting minimum or initial charge	64
Attempt to promote certain types of use	21	Change in size of blocks	63
Change in taxes	9	Uniform change in price	29
Over-all earnings	7	Purchased gas cost adjustment clause instituted	21
Change in operating costs	6	Change in price of terminal block only	12
Change in competitive position	6	Rates separated	10
Establish uniform rates	5	Rates combined	7
Conversion to another type of gas	5	Change in price of initial block only	5
To equalize rates	2	Delayed payment charge instituted	3
Change in investment	1	Uniform percent change in price	2
To modify effect of 1954 rate reduction	1	Delayed payment charge deleted	2
To simplify rate schedule	1	Purchased gas cost adjustment clause deleted	1
Over-all cost	1	Tax adjustment clause instituted	1
Change in supply of gas	1	Prompt payment discount instituted	1
Contract renewal	1	Prompt payment discount deleted	1
		Budget payments instituted	1

## THE EFFECT OF GAS RATE CHANGES\* 1947-1955

Year	Increases		Decreases	
	Customers Affected (Thousands)	Amount (Millions)	Customers Affected (Thousands)	Amount (Millions)
1947	2,637	\$12.0	203	\$ 0.4
1948	3,266	31.9	5	0.01
1949	6,284	35.2	25	0.3
1950	1,640	15.6	3,368	17.2
1951	1,935	22.0	894	5.8
1952	3,562	35.7	759	3.4
1953	9,609	57.6	943	1.6
1954	6,561	61.1	1,717	10.9
1955	9,067	51.8	1,256	7.5

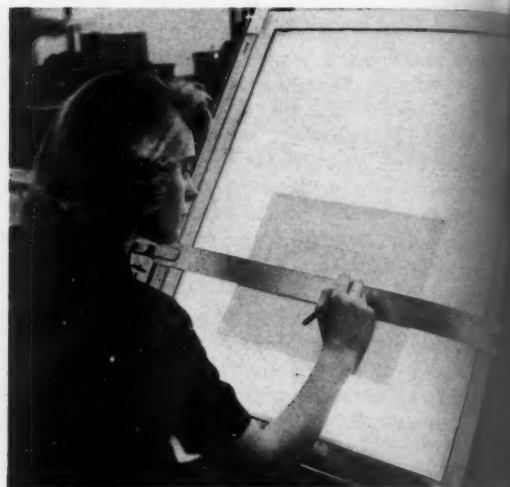
\* For those companies reporting the dollar effect.

*Duplicating machines save time, money  
in Michigan Consolidated Gas Co. paper work*

## Makes 'impossible' tasks possible



High-speed offset printers in the hands of trained employees play an important role in the duplicating activities of the utility industry



The micrometer "T-slide" on the Paraliner light-up table enables the operator to draw straight, evenly spaced lines very quickly

By PAUL E. EWERS

*Commercial Office Manager  
Michigan Consolidated Gas Co.*

Recently the corporate secretary of a fair-sized Midwestern utility brought a 15-page brief to the company's duplicating department, requesting 20 complete copies within an hour and a half.

The need was urgent. A copy of the brief was required to be in the hands of each member of the president's staff for a meeting scheduled within 90 minutes.

Four years ago, such a request would never have been made in that company because, with barely more than an hour to complete the job, the chances of meet-

ing such a challenge would have been judged to be virtually hopeless. But today, by utilizing presently available reproduction equipment, this particular utility's duplicating organization rose to the occasion by reproducing the required number of copies well within the prescribed period of time.

About three years ago this company learned of a certain process which would reproduce exact copies at the rate of three minutes per page. A distinctive feature of the process permitted the reproduction of facsimiles directly on plain sheets of chemical-free paper or on duplicating masters with equal ease.

One unit was purchased and immediately began to produce many economies.

A short time later a second unit was installed, and the addition of a third unit is now contemplated. The installation of this process has been directly responsible for meeting thousands of "impossible" situations similar to the story just related.

In the above instance, by utilizing both units to reproduce the brief, 15 duplimats were prepared—ready for a battery of offset printers—in approximately 20 minutes. In another 15 minutes the job had been completely run, now requiring only a few minutes to collate and staple mechanically.

The completed job—all 20 copies—was on the secretary's desk 20 minutes before the president's staff meeting. This

is a typical example of an important reproduction job completed with time to spare!

Similar incidents are occurring across the nation every working day of the week within our industry. The familiar sound of "this is a rush order" has become a byword, to a great degree, in most of our companies. And almost without exception, the more important reproduction jobs requested are, as a matter of necessity in the "rush," "hurry" or "expedite quickly" category.

This, of course, is brought about primarily by the never-ending, almost crying need for good communications up and down, and across lines of organization within our companies, and between

panies employ some form of duplicating facilities on their own premises and, without exception, are experiencing substantial annual savings as a result. In addition, many days—even weeks—of time lost waiting for the return of reproduction jobs from outside firms, have been eliminated.

Because of the tremendous savings being effected through the utilization of reproduction equipment in the utility industry, some of these experiences make valuable reading for those who are interested in cost reduction and improved communications. In relating the story of utilization of reproduction equipment in gas and electric companies, various types and makes of equipment and processes

duplicating job. The process used happened to be xerography (pronounced zee-rog-ra-fee). This company, like many others included in our survey, uses xerographic equipment extensively for many such reproduction jobs.

Xerography is a dry, electro-photo process which can be conveniently placed on a standard work table or desk and consists of three pieces of equipment: a camera, which transfers an image directly to a charged plate; a copier or processor, which transfers the image from the charged plate to a duplicating master (or just plain paper if only one copy is required); and a fuser, which is a heating device used to make the image permanent. Once heated, the image



The Karna-feed automatic collator shown here is capable of collating sets of 100 pages each at the rate of about 6,000 sheets an hour



The Vari-Typer machine provides a multitude of type faces ranging from bold face to italics, very useful for forms design

the company and the customer, which ultimately makes for better management-employee understanding and smoother company-customer relations.

Recently, a project group of the Customer Accounting Committees of A. G. A. and EEI made a study jointly of 44 gas, electric and combination utilities across the U. S. and Canada regarding the utilization of reproduction equipment and processes. The participating companies were evenly selected by type of commodity, size and geographic location. A further breakdown was made of companies serving centralized areas and those serving scattered areas.

The results of this study show that 100 per cent of the participating com-

panies will be mentioned. In addition, excerpts of some of the comments and remarks received from participating companies will be repeated.

However, we have no intention here to prescribe for your use any specific type of equipment or process; our companies' needs are too varied for that. What we will attempt to bring to light are experiences of other gas and electric companies for comparison with your own. By this procedure, ideas for greater economies or faster service through the expanded use of today's duplicating devices may be recognized.

For example, the story already related mentions a "certain process" which was utilized to expedite an urgently needed

will not smear or rub off.

"From the outset this equipment pays dividends," reports one utility executive. He went on to say, "It saves time in typing masters; it eliminates completely the need for checking the work because an exact copy is produced. Prior to installing xerographic equipment, photostat copies of many papers, reports and documents were prepared by a commercial reproducing firm. Transportation of the original copy to the reproducing firm consumed valuable time. It was often necessary for confidential work to leave our office, and considerable expense was involved. Xerography has almost entirely eliminated such outside work, with resultant lower costs and quicker service."

An eastern utility supervisor said, "An annual savings of approximately 1,000 man-hours resulted from the preparation of financial reports by the use of xerography."

A reproduction department manager in St. Louis tells us that the use of xerography eliminates retyping, proof-reading and redrawing of material, with resultant reproduction costs being much lower than commercial reproduction.

The A. G. A. MONTHLY of December 1956 carried a story by William T. Mott, auditor for The Peoples Gas Light and Coke Co., Chicago, explaining in detail how xerography helped them convert their general equipment record to a punched card record. Mr. Mott stated in his article that by using xerographic

30,000 cards was reproduced and transferred to punched cards at a very substantial saving in costs.

There are many other unique processes and equipment being utilized by the duplicating activities of our industry. While xerography is used primarily for preparing duplicating masters for off-set printing machines, processes such as Thermo-Fax, Veri-Fax, Steno-Fax, Apeco, Bruning, Kodak and others are used primarily when only one, or a few copies are needed.

This type of equipment is proving to be extremely useful and economical. For example, anyone who needs a single copy of a report can get an exact reproduction in as little time as four seconds. The initial cost of the equipment is neg-

of the comments received regarding the Paraliner clearly shows that tracing work is made much easier and that the spacing of horizontal and perpendicular lines is very accurate and fast because of the micrometer attachment and rotating table top. One company says that the equipment has paid for itself many times over in just a couple of years.

Another valuable piece of equipment useful in forms design and other special typing work, and mentioned by more than 60 per cent of the reporting companies, is the Vari-Typer. Through the utilization of Vari-Typers, companies are obtaining a "professional" look in their forms design and on various other unusual typing jobs. The type fonts for these machines are interchangeable and over 100 different type faces are available which, of course, provides for just about every style of printing imaginable.

A reproduction supervisor of a utility located in the Far West testifies, "The Vari-Typer is operated with all the simplicity of an ordinary office writing machine. The average office typist can quickly learn its operation, applying any previous knowledge of typing to the manipulation of the machine. We use the Vari-Typer to type-compose directly on duplicating masters. Furthermore, both right and left margins can be squared up evenly, like regular print-shop work."

Savings through the utilization of unique equipment, such as xerographic equipment, Paraliners and Vari-Typers are only a part of this story. The returns from the participating companies clearly indicate substantial savings are being effected also through the use of large volume printing equipment.

Primarily, the multilith printing process is used throughout the gas and electric industry for large volume printing jobs, the reason being that it is a very versatile process. Copy ranging from postcard size to 22 by 29 inches and larger can be obtained. Reproductions can be made on all grades, weights and types of paper and card stock in either single or multi-color. Reports, documents, advertising, forms, bulletins, maps, sales promotion literature—almost any printing job—can be reproduced with excellent quality and in large volumes, economically.

By using paper masters, up to 5,000 copies can be produced from this duplicating process; however, it is not new.  
(Continued on page 45)



A complete Xerography unit consisting of a camera (r.), a processor, and a fuser (f.), fits compactly into the duplicating area. Duplicating masters can be produced by this process at the rate of one every three minutes, saving hours of typing and proofreading

equipment on a rental basis, in less than 90 days the descriptive matter on the entire general equipment record of some

● An increase in the cost of employees' follow-up booklets included in the Customer Relations training material has necessitated an increase in the A. G. A. sale price from 10 cents to 15 cents. This applies to the booklets only when they are ordered separately from the complete kit of training material. The material was prepared under the supervision of the EEI-A. G. A. Customer Relations Committees of the EEI Accounting Division and the A. G. A. Accounting Section.

ligible compared to the time saved in typing and proofreading.

It is interesting that 80 per cent of the participating companies use their duplicating facilities for printing some company forms. The percentage of forms printed within the individual companies range from one per cent to 99 per cent. A little over one-third of these companies are utilizing a very handy device called a Paraliner Line-up and Light Table to assist in the preparatory stage of setting up duplicating masters or plates for the various forms.

This piece of equipment saves valuable time and enables an operator or forms designer to produce extremely accurate and high quality work. A resumé



# Gas best, sanitation film shows



Here is one of Cincinnati's largest TV studios which was used for the settings of the picture "How Clean Is Clean?"

A new motion picture, "How Clean Is Clean?," just released and available from the American Gas Association, is of major interest to all hotel and restaurant groups, public health officials, sanitation engineers and equipment dealers in the volume feeding field.

This film, which is sponsored by the National Sanitation Foundation and the Conference of Municipal Health Engineers, shows and explains the proper techniques to be followed in dishwashing procedures to obtain the maximum in both cleanliness and sanitation. It shows how high levels of dish sanitation can be maintained by a combination of hot water at correct temperatures for washing and rinsing, plus proper use of dishwashing equipment, correct use of detergent and then careful storage.

In order to demonstrate these proper procedures, a laboratory setting was built for the picture patterned after standard

kitchen installations in all respects, except for the addition of scientific instruments that are used to show graphically and record what takes place during various dishwashing cycles.

The dramatic impact of the film is in the use of dish soil or bacteria impregnated with radioisotopes and the "pickup" of these radioactive bacteria by a Geiger counter after each washing cycle. When dishes are apparently thoroughly washed but not sanitized by 180° rinse water, the Geiger counter crackles and counts with machine-gun speed. There is a startling contrast to the practically zero pickup when dishes are washed in accordance with the recommended procedure set forth in this motion picture.

Particular stress is placed upon the importance of two-temperature hot water supply, proper usage of detergents, automatic injection of a drying agent,

and correct dish storage and dispensing from kitchen to table.

"How Clean Is Clean?" shows how public health officials and industry work as a team to promote public health and build a sound food protection program that is simple and workable in the restaurant kitchen. It shows why more than 70 million meals eaten outside of the home every day are accepted with confidence and trust.

The film is 16mm. color with sound and runs 20 minutes. About three miles of film were shot to obtain 720 feet of finished print. It is available on a loan basis to accredited organizations in the hotel, restaurant, volume feeding equipment field, public health organizations and other groups. Copies of the film are available on advance notice. Write:

National Sanitation Foundation  
School of Public Health

University of Michigan  
Ann Arbor, Michigan

American Gas Association  
420 Lexington Avenue  
New York 17, New York

The Commercial Gas Sales Department of your local gas company will be glad to assist in arranging for showings to interested groups.

Sponsors of the film are: National Sanitation Foundation and the Conference of Municipal Health Engineers.

Supporters of the film are: American Gas Association, G. S. Blakeslee Co., Economics Laboratory, Inc., Hobart Manufacturing Co., Lowerator Division of American Machine & Foundry Co., Ruud Manufacturing Co., and A. O. Smith Corporation.

## Thousands to view commercial gas equipment exhibit

With 14 cooperating manufacturers, and occupying nearly 5,000 square feet of floor space, the largest A. G. A. Combined Commercial Gas Exhibit will again span the Navy Pier in Chicago at the 38th National Restaurant Exposition for the entire week of May 6, 1957.

The latest in heavy duty commercial gas equipment and allied appliances will be on view for the thousands of visitors to the largest mid-western trade show.

Several newcomers will be under the Blue Flame banner this year and many innovations will be featured throughout the gas area, among which will be new high-speed top burners. The highlight of the show will be the new automatic ignition equipment which is now mandatory on all approved range ovens, portable deck ovens and deep fat fryers.

This vast exposition gives commercial

gas men the opportunity to see the latest equipment available, and to meet with manufacturers whose equipment they use daily. They also are able to meet other gas men for an exchange of views and discussion of local problems.

The show will be open on Monday, May 6, from 9:00 a.m. to 6:00 p.m. for dealers and wholesalers. It is open on Tuesday, Wednesday and Thursday, May 7-9, from 8:30 a.m. to 6:00 p.m. for the trade. On Friday, May 10, the hours will be from 8:30 a.m. to 4:00 p.m.

Three exhibitors in the A. G. A. area will have live exhibits, demonstrating a coffee urn, simulated charcoal broiling and a steamer. Those manufacturers co-operating in this combined exhibit sponsored by the Industrial and Commercial Gas Section are:

Anetsberger Brothers, Inc., North-

brook, Ill.; The G. S. Blodgett Co., Inc., Burlington, Vt.; Char-Rock Products, Indianapolis; Cleveland Range Co., Cleveland; B. H. Hubbert & Son, Inc., Baltimore; Kewanee Industrial Washer Corp., Kewanee, Ill.; Magic Chef, Inc., Cleveland; Malleable Steel Range Mfg. Corp., South Bend, Ind.; Market Forge Co., Everett, Mass.; Mid Continent Metal Products Corp., Chicago; Morley Mfg. Co., Mascoutah, Ill.; Robertshaw-Fulton Controls Co., Youngwood, Pa.; Rosander Company, Minneapolis; Welbilt Corporation, Detroit. The American Gas Association will have an Information Center and Lounge.

As there are always so many commercial gas men attending the Restaurant Show, a meeting of the Food Service Equipment Committee is held during the week.

## 1956 PEP winners in GAMA contest announced

Awards to the winners of the 1956 Gas Appliance Manufacturers Association's prize contest, held during the last PEP Campaign sponsored by the Industrial and Commercial Gas Section, were presented at the Section Conference in New Orleans by Harold Massey, managing director of GAMA.

Winning companies in their respective classes who made the best showings in sales of heavy duty commercial cooking equipment were: among the companies having over 100,000 meters, The Laclede Gas Company, St. Louis, a second time winner; from 25,000 to 100,000 meters, the Piedmont Natural Gas Co., Inc., Charlotte, N. C., getting an award for the fourth year; and among those companies with less than 25,000 meters, Worcester (Mass.) Gas Light Co., receiving its first award.

There were 83 companies participating in the last PEP Campaign, representing slightly over one-half of the country's meters. For the most part, the companies used A. G. A. materials in conducting their individual campaigns, although some companies adapted them to suit particular local conditions.

In Houston, Houston Natural Gas Corporation and United Gas Corporation, cooperated with nine equipment dealers. The success of the last campaign over the first in 1953 was pointed out at a victory dinner by L. P. Thomas, Houston Natural's vice president. He said that the sales during the three-month 1956 period were \$136,000 compared with \$36,000 in 1953. There was a 10 per cent increase over 1955.

One of the sales incentives in Houston was that each salesman who took

part in the campaign earned trading stamps on the basis of 15 stamps for each 1,000 Btu of appliance input they sold. The leading salesman earned 30,000 stamps.

Other companies had various incentives for dealer salesmen. Marked success has resulted in this phase of the over-all campaign by having more and accurate reports of sales by dealers thereby contributing to better industry statistics.

About half of the participating companies entered the GAMA prize contest. Their reports were the basis of selecting the winners in the respective classes. From an analysis of the sales figures, practically every company, with but one or two exceptions, showed marked increases in sales, with some showing up to a 500 per cent increase.

# Eastern Gas Sales Conference set for May 6-7

The 1957 Eastern Gas Sales Conference will be held at the Penn-Sheraton Hotel, Pittsburgh, Pa., on May 6-7. This Conference, which serves the states of Delaware, Kentucky, Maryland, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia and the District

of Columbia, usually attracts excellent attendance from gas company executives, sales managers, salesmen and home service, in addition to manufacturer representation.

The opening session on Monday will be under the chairmanship of

George W. Coulter, business promotion manager, The Manufacturers Light & Heat Co., Pittsburgh, Pa. The keynote address will be given by A. W. Conover, president of the Equitable Gas Co., Pittsburgh, Pa. and first vice-president of the American Gas Association. The title of his address will be "New Horizons."

Mr. Conover will be followed by Harold Jalass, vice-president of Cribben & Sexton Co., Chicago, Ill., who will give one of his usual dramatic and dynamic sales presentations. The morning session will be concluded by the premier showing of a new color motion picture on salesmanship, prepared by the Day & Night Water Heater Company.

The afternoon session for Monday will feature an up-to-date and comprehensive presentation on gas year-round air conditioning. This part of the program will be kicked-off by George F. Taubeneck, editor and publisher of *Air Conditioning & Refrigeration News*, Detroit. He will be followed by representatives of a number of manufacturers

(Continued on next page)



George W. Coulter will serve as chairman of the opening session



A. W. Conover, Equitable Gas Co. president, is keynote speaker

## Zachry to address Midwest Sales Conference



Roger J. Karcher, Michigan Consolidated Gas Co., will preside



C. H. Zachry, A. G. A. president, will give inspirational address

The Edgewater Beach Hotel in Chicago, Ill., will be the location of the next Midwest Regional Gas Sales Conference on May 20-22, 1957. Roger J. Karcher, assistant sales manager, Michigan Consolidated Gas Co., Detroit, Mich., and chairman of the Midwest Regional Gas

Sales Council, will preside at the meeting.

C. H. Zachry, president of the Southern Union Gas Co., Dallas, Tex., and president of American Gas Association, will deliver the inspirational address on Monday morning, May 20, under the title, "The Blue Flame Marches On!"

With January 1, 1959 as the date upon which all gas ranges bearing the A. G. A. Blue Star Seal of Approval must include automatic lighting for all burners to qualify for the seal, the Council has invited Frank N. Seitz, vice-president, Southern Counties Gas Co., Los Angeles, Calif., to discuss the methods and techniques used by his company in getting dealers to sell completely automatic gas ranges. The title of his speech is "Automatic All the Way."

Thomas H. Lane, senior vice-president, Lennen & Newell, Inc., advertising agency for A. G. A., will review the A. G. A. national advertising program and the gas industry's television show, "Playhouse 90." The title of Mr. Lane's presentation will be "Keys to Sales."

Miss Julia Meade, the gas industry's hostess and commercial expert on "Playhouse 90," will be present in person to make some brief remarks. C. S. Stackpole, managing director of A. G. A., will review some of the most important A. G. A. programs, under the title, "Full Speed Ahead!"

(Continued on next page)



## Eastern sales

(Continued from preceding page)

currently engaged in research and production on gas year-round air conditioning equipment, who will discuss the status of these programs.

Following the individual presentations, Mr. Taubeneck and the other speakers will sit as a panel to answer questions from the floor. Dan Daley, vice-president of Lennen & Newell, Inc., advertising agency for A. G. A., will discuss A. G. A. national advertising, the gas industry's TV show, "Playhouse 90," and briefly summarize the Mrs. America program.

The manufacturers' Friendship Room, which is one of the highlights of the Conference, will be sponsored by the gas appliance manufacturers Monday evening, from 5:00 to 7:00 p.m.

Tuesday's session will be under the direction of Howard Niles, assistant sales manager, Public Service Electric & Gas Co., Newark, New Jersey. A presentation will be made on gas incinerators, including the new smokeless, odorless units now available, and a discussion on how to promote and sell gas incinerators. A dramatic product demonstration will be given on the Servel gas refrigerator. Methods to increase gas refrigerator sales will be discussed, and Servel's 1957 gas

refrigeration program will be reviewed.

Recognizing the importance of the dealer, who today sells more than 90 per cent of all appliances to the American homemaker, a representative of the National Appliance and Radio Dealers Association has been invited to discuss the important subject of dealer cooperation. Another speaker from outside the industry has been invited to discuss the subject of "How to Make Sales Meetings Pay Off."

Copies of the advanced program and a hotel reservation card will be sent early in April to all gas utility companies and gas appliance manufacturers in the states served by the Conference.

## Midwest sales

(Continued from preceding page)

On Monday afternoon, May 20, Remick McDowell, vice-president, The Peoples Gas Light & Coke Co., Chicago, Ill., and past chairman of the A. G. A. Public Information Committee, will review the vitally important Public Information Program.

Well known and capable speakers will appear on the program during Monday afternoon and Tuesday and Wednesday

morning to discuss many of the industry's problems in the field of the promotion and sale of all residential uses of gas, including gas "year-round" air conditioning, refrigeration, clothes dryers and automatic gas water heaters. There will also be an inspirational address by a nationally known speaker from outside of the gas industry, in addition to a presentation by a representative of the LP-Gas industry, under the title "Partners in Progress."

The Midwest Regional Gas Sales Con-

ference serves the states of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin and Wyoming, and it is expected that the usual excellent attendance from this area will be continued.

One of the features of the Conference will be the annual dinner and entertainment.

This is sponsored jointly through the courtesy of the gas appliance manufacturers and the Council.

## Newly consolidated Iroquois Gas Corporation elects officers

IROQUOIS GAS Corporation and Republic Light, Heat & Power Co., both of Buffalo, N. Y., have been consolidated into one organization following recent approval by the Federal Power Commission and the Securities Exchange Commission. The consolidated company has retained the Iroquois Gas Corporation name.

With this consolidation comes the announce-

ment by Stuart H. Nichols, president, of the following newly elected officers of the consolidated corporation.

Herbert D. Clay, former Iroquois vice-president, is now executive vice-president. Howard F. Moore, former Republic vice-president, is now vice-president. Hubert P. Nagel, former Republic assistant treasurer, is now assistant secretary. Roy W. Card, former Iroquois gen-

eral office accounting supervisor, is now assistant treasurer.

Mr. Nichols also announced the appointment of Lyle D. Burdick as advertising and sales promotion manager, and Richard L. Dutweiler as general sales manager of the new corporation.

Iroquois Gas is a member of the National Fuel Gas System.

## A.G.A. announces new publications during March 1957

### PAR

• **PAR Briefs** (for promotion, advertising, research, and public relations executives). Sponsored by PAR Committee, and available free of charge from A. G. A. Headquarters.

### LABORATORIES

• **Performance Characteristics of Gas Ovens** by Patricia Speidel (for gas utilities, appliance manufacturers). This report—Research Report No. 1264—was sponsored by the A. G. A. Committee on Domestic Gas Research and is available from Headquarters or Laboratories at \$1.25 a copy.  
• **American Standard Approval Requirements for Domestic Gas Ranges, Vol. II, Built-In Domestic Gas Cooking Units**, effective Jan.

1, 1957, Z.21.1.2-1956 (for gas utilities, appliance manufacturers). Available from Headquarters or Laboratories at \$2 a copy.  
• **American Standard Approval Requirements for Gas Counter Appliances**, effective Jan. 1, 1957, Z.21.31-1956 (for gas utilities, commercial equipment manufacturers). Available from Headquarters or Laboratories at \$2 a copy.

### SAFETY

• **Suggested Safe Practices When Installing and Servicing Gas Appliances** (for distribution to gas company personnel and others concerned with installing and servicing gas appliances). This booklet, described in the October 1956 issue of the A. G. A.

MONTHLY, has been reprinted in convenient, pocket-sized form. Cost varies from 40 cents a copy for orders under 100, to 30 cents a copy for orders over 1,000. The booklet is now available from A. G. A. Headquarters.

### STATISTICS

• **Monthly Bulletin of Utility Gas Sales**, February 1957 (for gas companies and financial institutions). Sponsored by and available from the Bureau of Statistics; free.  
• **Report of Subcommittee on Accelerated Processing of Rate Changes** (for gas company rate personnel). Sponsored by the A. G. A. Rate Committee and available at \$1 a copy from the Bureau of Statistics.



# Industry news

## Win National Safety Council honors

THE PEOPLES Natural Gas Co., Pittsburgh, Pa., repeating an achievement of four years' duration, has again earned top ranking among the nation's major companies in the annual safety competition sponsored by the National Safety Council.

A frequency rating of 1.39 put Peoples in first place for the 1956 award. Peoples' safety director, Leo R. Nuhfer, reports that several company organizational units had individual records of working over a million manhours

without a lost-time accident. Peoples' comprehensive safety program includes classes in fire fighting, first aid, highway safety, and in the use of gas masks while repairing line breaks.

First place for combination utilities went to Wisconsin Public Service Corp., which set the unusual record of only 0.27 accidents per million manhours worked—barely nosing out the New Orleans Public Service Co., which had a frequency rate of 0.28.

## Gas industry PR aims told in new A.G.A. publication

THE GAS INDUSTRY is making encouraging progress in public relations, according to T. H. Evans, vice-president, Equitable Gas Co., and chairman, A. G. A. General Public Information Planning Committee. Mr. Evans' remarks preface a colorful new brochure, *The Gas Industry Speaks Up*, which outlines the 1957 PAR Public Information Program of American Gas Association.

"Today, many gas companies have organized and are continuing programs designed to win public understanding and support," Mr.

Evans declared. "Throughout our industry, management is making wide use of the most advanced public relations techniques and practices."

A 41-man PAR Public Information Task Force, representing all areas of the country and all types and sizes of companies, is engaged in a crusade to increase these public relations gains further. Its major objective in 1957 is to help local gas men tell the story of modern gas service and gas appliances from coast-to-coast. Assistance is being pro-

vided in five major areas: winning employee understanding and support; telling the facts on government encroachment in the gas business; stimulating local public relations action; supplying public relations tools for local use; and building favorable national publicity.

Copies of *The Gas Industry Speaks Up* have been mailed to all A. G. A. member company delegates. Additional copies are available without charge from the Public Information Bureau of A. G. A.

## Industry men plan annual short course at West Virginia

INITIAL PLANS have been completed for the 17th annual Appalachian Gas Measurement Short Course to be held August 26-28 at West Virginia University, Morgantown. The short course is attended annually by measurement and control engineers and other technical personnel representing the gas and petrochemical industries.

Subjects to be covered in the intensive three-day course will include the fundamentals of gas measurement, and special sessions on domestic meters, orifice meters, large-

capacity meters, automatic control instruments, pressure regulators and other related equipment. A basic course for those new in the industry is offered in designated lecture halls. Moderated forums will be offered daily on specific phases of measurement and control. Nearly 100 industrial and technical experts will conduct the various classes, laboratory sessions, and forums.

While the attendance has constantly increased in the 17 years of this school, the new engineering and chemical industry buildings

as well as men's residence halls offer ample facilities for all planning to attend.

H. B. McNichols of the Columbia Gas System Service Corporation, Columbus, Ohio, is the general chairman and James W. Chrisman of The East Ohio Gas Co., Cleveland, Ohio, is the program chairman. R. E. Hanna and R. W. Laird of the University faculty are in charge of publications, registration, exhibits, and dormitory housing.

Program requests and reservations should be directed to Prof. Hanna.

## To hold convention

THE annual convention and general management conference of the Florida-Georgia Gas Association will be held April 12-13 at the Key Biscayne Hotel, Miami, Florida. Joseph Frink of the Florida Power & Light Company is general chairman for this meeting.

## Reznor buys Olson

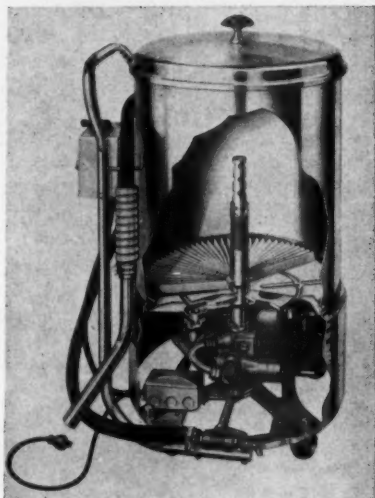
REZNOR MANUFACTURING CO., Mercer, Pa., manufacturer of gas unit heaters, has announced its purchase of the assets of Arthur A. Olson & Co., Canfield, Ohio, manufacturer of Olson stainless steel direct-fired gas and oil heaters. The purpose of the acquisition, according to Reznor President David R. Webster, is to expand the Reznor line into units of larger capacities. With the Olson equipment, Reznor will offer unit heaters in 18 individual capacities from 25,000 to 2,000,000 Btu, with models in all appropriate sizes for suspended, duct and free-standing installations. Production of the Olson units will be integrated into Reznor manufacturing operations in the near future, Mr. Webster said. Arthur Olson and Edwin Runge, officers of the Olson company, will join the Reznor Manufacturing Company staff.

## Gas Unity Committee plans campaign



The Gas Unity Committee met in New York City recently to plan the combined gas industry campaign to "sell consumers gas wherever they live." Left to right: Gordon M. Jones, UGI; GAMA President Julius Klein, Caloric; Mrs. Joyce Schuler, acting secretary; Arthur E. Bone, Eastern Propane; H. Leigh Whitelaw, GAMA; Committee Vice-Chairman A. H. Cote, Suburban Propane; LPGA President Kenneth Dickson, Uregas Service; Howard D. White, LPGA; and Col. Ellsworth L. Mills, Bastian-Blessing. In right background are Harold W. Springborn, "Gas Age," and Med Serif, "LP-Gas."

## Introduce new high-speed fat filtering machine for fryers



Cut-away view of Fry-Saver, new fat filtering machine, shows the Porosite filter cartridge

THE TASK of filtering cooking fat has been simplified and made almost automatic by S. Blickman, Inc. of Weehawken, N. J., manufacturers of food service equipment, who are introducing a new fat filtering machine called Fry-Saver.

Fry-Saver is the first cooking fat filtering machine to operate without any filtering aids. The cooking fat filters through a microscopically fine Porosite filter cartridge which removes all solids and other impurities in the fat. This specially designed filter cartridge provides 15 times the filtering area of a disk of equal circumference. The cartridge is easily replaceable when required, and its special handle simplifies filter removal.

This new method of fat filtering is practically automatic, operating like a high-powered vacuum cleaner. An employee can quickly drain the unfiltered cooking fat out of the fryer through the intake hose, eliminating the unpleasant job of draining this fat through the filter cock underneath the fryer.

The fat is then purified through the filter, and if any food particles remain in the fat chamber of the fryer, the Fry-Saver can clean it

out with a filtered hot cooking fat flush which is pumped back into the fryer through the same hose. Impurities are then drawn out of the fryer through the hose, after which all the filtered fat is pumped back into the fat chamber of the fryer.

The Fry-Saver is a self-contained electrically operated, portable unit specifically designed to be used by unskilled help. It will work with any deep-fat fryer on the market today.

The Fry-Saver was first field tested for two years in restaurants and other commercial cooking operations where fried foods are an important item on the menu. These tests revealed savings in cooking fat as high as 50 per cent, and also proved that the chore of filtering fat can now be a swift, efficient one-man operation.

The manufacturer reports that comments from users indicate that fried foods prepared in filtered cooking fat have a fresher appearance and lack the fattening look so common to fried foods that have been prepared in improperly filtered cooking fat.

For further details and literature contact: S. Blickman, Inc., Weehawken, New Jersey.

## Four utilities added to list of Servel refrigerator distributors

APPOINTMENT of four gas companies as utility-distributors for Servel gas refrigerators has been announced by E. A. Nash, general sales manager of the home appliance division of Servel, Inc.

The four utilities are the Montana-Dakota Utilities Co., Minneapolis, Minn.; Western

Kentucky Gas Co., Owensboro, Ky.; Central Indiana Gas Co., Muncie, Ind., and Iowa-Illinois Gas & Electric Co., Davenport, Iowa.

In each case the utility-distributors will be responsible for the sales and service of Servel gas refrigerators in communities served by their gas lines.

Gas companies previously appointed as utility-distributors by Servel include the Lone Star Gas Co., Dallas, Texas; Houston Natural Gas Co., Houston, Texas; Minneapolis Gas Co., Minneapolis, Minn.; Philadelphia Gas Works, Philadelphia, Pa., and Iroquois Gas Corp., Buffalo, New York.

## Over three carloads of ranges placed in schools by Gas Service

BETWEEN three and four carloads of new gas ranges have been installed in school home economics departments during the past year by The Gas Service Co., Kansas City, Missouri. Ten Servel refrigerators and 288 gas ranges have been installed by the company in colleges, universities, and high schools.

In accordance with contracts between the schools and the utility, the ranges are exchanged without charge every two or three years to provide students with the newest gas equipment available.

While most of the ranges are in schools in

the company's area, many others have been installed in schools outside the company's service territory. Among these are 11 ranges and two refrigerators at the University of Kansas, four ranges at the University of Missouri, and eight ranges at Kansas State College. Earlier, the company had completely furnished eight food laboratories at the University of Missouri.

The company felt that having the newest equipment in the laboratories was important enough to warrant sending appliances by truck along with men to install them even though it meant traveling distances of 50 or

60 miles.

The *Pittsburg Sun* devoted an entire page of pictures to the new appliances in the laboratories, and described the equipment as "second to none."

Schools have praised the equipment highly, and the company has received numerous letters of praise from teachers, principals, and the boards of education. One sales supervisor has reported that several ranges have been sold recently with purchasers stating that their daughters insisted they buy a range just like the ones used in their home economics classrooms.

## Northwestern Utilities budgets over \$3 million for this year

NORTHWESTERN UTILITIES, Ltd., announces that during 1957 it anticipates expenditures of approximately \$3 million on additions and extensions to its existing natural gas plant and for the purchase of equipment. This expenditure will raise the company's total assets above \$50 million.

During 1956 the company installed 7,159 new services on its system, 1,819 of which were in the newly connected communities of Bruderheim, Chipman, Edson, Josephburg, Hinton, Hilliard, Lamont, Millet, Mulhurst, Mundare, Onoway, and Sylvan Lake. This year it is providing for an additional 5,450. Of these, 800 will be in the eight new communities to be served from extensions of the company's present system.

The peak daily demand for the company's entire system during 1957-58 winter is estimated at approximately 315 million cubic feet. This would be an increase of 19 million cubic feet over the theoretical peak day for the current winter of 1956-57.

A major item in the capital program is \$520,000 to serve the communities of Evansburg, Entwistle, Wildwood, Islay, Lavoy, Ranfurly, Innisfree and Minburn. The first three of these will be served with gas from the North Canadian Oils Ltd. transmission line between Wabamun and Hinton. The company at the present time serves Edson from this line. The community of Islay will be served by a five-mile line from the company's Lloydminster transmission line. The communities of Lavoy,

Ranfurly, Innisfree, and Minburn will be served by a transmission line from the Viking field.

Approximately \$385,000 has been allocated for expansion of the company's production facilities. Of this \$140,000 is tentatively provided for the drilling of four new wells in the Fort Saskatchewan Field.

Over \$375,000 has been allocated for improvements to the distribution systems in the city of Edmonton and other communities served by the company. Another \$395,000 is being provided for extensions to the existing distribution systems to serve new customers.

Over \$700,000 will be expended on service installations for new customers and for meters and regulators.

# Manufacturers announce new products and promotions

## PRODUCTS

● To improve hot water supply for the food service industry, Ruud is now adding to standard Sanimaster gas water heaters the new Flow Controlling "T." This device minimizes cold water turbulence in the gas water heater tank, and makes a check valve in the return line unnecessary. It is a special drain cock with an additional side opening. Within this cavity is an orifice—removable and replaceable—that controls the volume and speed of water returning to the Sanimaster when it is connected to the flow and return lines of commercial dishwashers. When the proper orifice is matched with water demands, the rate of water returning to the water heater through this drain cock opening can be maintained to assure 180F water in the tank.

● A new aluminized duct furnace primarily for commercial and industrial applications is being manufactured by The Payne Company. It is available in four sizes—200,000, 280,000, 360,000, and 440,000 Btu for natural gas. The new aluminized heat exchanger was reported to have four times the corrosion resistance of mild steel. The new line can be used in combinations up to 1,760,000 Btu input per hour. The furnaces are 51 inches high plus draft diverter, and are equipped with Honeywell controls and Baso safety pilots.

● The Killam Gas Burner Company announces the manufacture of an adjustable, universal model OR-16 gas inshot burner, designed for easier conversion of small and medium residential gun-type oil-fired boilers and furnaces to automatic gas heat. One standard unit of 100,000 to 200,000 Btu capacity fits all flat or curve-faced installations with universal mounting flange. Thumb-locking screw adjustments permit extension of gun barrel to length desired, and also extension of baffle to control flame characteristics. Adjustable shutter controls primary air intake, and adjustable side panels locked with thumb screw permit ready adjustment of secondary air intake.

● Day & Night Manufacturing Company has announced the release of the new Super-charged Century line of water heaters. New features include a new Jetglas-coated burner guaranteed for the lifetime of the heater; Jetglas coating on the inside and Pyraloy-Armorcoat on the outside of the tank to prevent rust and condensation; metered magnesium anode rod; brass nipples; 100 per cent controls; and a ten-year guarantee. A front flue prevents "stacking," and a draft diverter makes possible a center flue connection without the necessity of special elbows. The line is available in 30, 40, 50, 70, and 100 gallon sizes. The 30-gallon heater is rated at 40,000 Btu per hour for natural and manufactured gas.

● Chattanooga Royal now offers central heating under the "Chattanooga" trade name. The line consists of five models in three sizes

(80,000, 100,000, and 120,000 Btu input) including two new builders' models with direct drive blower capable of handling up to two tons of air conditioning. The company also offers a new series of recessed vented wall heaters, approved under the 1957 A. G. A. requirements. All models may be equipped with the thermostatically controlled Royal snap-in blower. All have a lifetime burner, safety controls, and a 20-year guarantee on combustion chambers. Both central heating units and recessed vented wall heaters are A. G. A.-approved for natural, manufactured, or liquefied petroleum gas.

● A new automatic top burner control for gas ranges has been introduced by Penn Controls. Penn's "Topstat" offers accurate control of cooking conditions between 150 degrees and 400 degrees. Penn also announces the manufacture of "Rimset," a new thermostat with the largest and most easily read dial on the market. The thermostat is available for controlling heating and/or cooling. It always remains the same for any system variation; all heating or cooling variations are made in the sub-base, thus allowing the stocking of various sub-base assemblies to meet any customer requirement. An adjustable heat "anticipator" is claimed to permit accurate temperature control within one degree.

● Six new gas-fired wall heaters are now being manufactured by Coleman. All are approved under A. G. A. 1957 requirements. Four are single wall heaters, with input ratings of 25,000 and 36,000 Btu, which may be installed with or without blower or rear grille. Two are dual wall heaters, rated at 50,000 and 62,000 Btu. All units are designed to fit between wall studs on 16-inch centers, and may be installed with fresh air intake. Major feature of the new design is a furnace-size combustion chamber with deep-drawn vertical corrugations to give greater heating surface and increase air flow. All are equipped with 100 per cent safety shut-off. Automatic controls and "Tri-Matic" three-speed blowers are optional.

● A new ductile iron called "Relianite," a variation of a new family of cast metals recently developed by International Nickel, is now being made at American Meter. The metal combines the process advantages of cast iron with the advantages of steel. It is presently going into high-pressure meters and regulators for field testing, and may ultimately go into many American Meter products with working pressures of 100 pounds psi or more.

● Mt. Vernon Furnace & Manufacturing Company's new Vernois line of built-in and stack-on range units feature the "Broilmaster" oven, Robertshaw automatic temperature controls, and offer a choice of seven decorator colors. Counter top units consist of two-burner and four-burner models, plus a large aluminum griddle.

● A remote-bulk, snap-action modulating head for its "Adatrol" system has been developed by Minneapolis-Honeywell. The new

unit, designated T5001, can be factory installed on the Honeywell Adatrol 'V592 gas cock pilotstat or can be added later on the job. The new development carries forward the company's plan by which all additions to the basic "Adatrol" gas cock "Pilotstat" can be added with a screw driver, without a casting change.

## PROMOTIONS

● An eight-page folder describing the objectives, facilities, equipment, and curriculum of the Ruud Institute of Gas Water Heater Engineering is available from Ruud. The two-color booklet points out that the training course is open to those working the commercial gas water heating field as gas utility, L.P.-Gas company plumbing wholesaler and retailer executives or representatives, as well as independent architects and engineers.

● Rockwell announces the publication of two new bulletins. One, the revised No. 1083, covers the entire line of Rockwell domestic gas meters including all four Rockwell single-joint domestic gas meters. All statistical information has been brought up to date. The other is a new version of the company's bulletin *Lubricants for Rockwell-Nordstrom Valves* (V-220), which provides more detailed lubricant selection data including information about 80 new lubricants. Four new lubricants not listed in previous bulletins are described in detail. They are: No. 555, for hydrocarbon liquid and gas services; No. 921, for strong acids and alkalis, alcohols, glycerine and glycols, amines, aqueous solutions, hot water, and hot asphalt; No. 860, for natural gas transmission line services; and No. 833, for aviation gasoline, jet fuel, hydrocarbon and aromatic solvent services.

## New Servel display



Latest floor display for the Servel refrigerator is shown by E. A. Nash, general sales manager, Servel home appliance division. The display uses flashing light, air-spun mobile panel, and revolving drum to direct attention to three exclusive Servel features—gas operation, automatic ice-maker, color-balanced, styling



# Highlights of cases before the Federal Power Commission

Bureau of Statistics, American Gas Association

## Certificate cases

● **El Paso Natural Gas Co.:** The FPC has authorized the company to construct and operate additional natural gas facilities in the San Juan Basin at an estimated cost of \$1.6 million. The facilities, for which temporary authority was granted last September, include 4,620 additional compressor horsepower and dehydration facilities for processing 97 million cubic feet of gas daily. Existing customers will benefit from the newly acquired reserves. In another action, El Paso Natural Gas filed an application with the FPC requesting authorization to construct and operate \$107.1 million in pipeline facilities in order to supply existing customers with additional 185 million cubic feet of gas daily. The company proposes to construct 533 miles of gathering pipe and 27,850 compressor horsepower in the Texas counties of Wheeler, Borden and Upton, and in the New Mexico counties of Lea, San Juan and Rio Arriba. Main line facilities include 216 miles of pipe and 58,900 horsepower in new and existing compressor stations, and other appurtenances to be constructed in Texas, New Mexico and Arizona. Pacific Gas & Electric has been allocated 75 million cubic feet daily of the new proposed gas supply, and the two distributing subsidiaries of Pacific Lighting will share an additional 75 million cubic feet daily. Customers in the Yuma, Ariz., area have been allocated the remaining 35 million cubic feet daily.

● **Manufacturers Light and Heat Co.:** The company has been granted temporary authorization from the FPC to abandon a 2,500

horsepower compressor station in Washington County, Pa., and to replace it with a 5,280 compressor horsepower station relocated in Marshall County, W. Va., at an over-all estimated cost of \$3.6 million. The additional horsepower is required to deliver increased maximum daily quantities of gas to the Majorsville and Heard storage fields in the summer of 1957, 1958, and 1959, and to increase deliveries from storage during the 1957-58 heating season.

● **Mississippi River Fuel Corp.:** The FPC received an application from Mississippi River Fuel asking authorization to construct and operate approximately 125 miles of pipeline, looping its existing main line No. 2 in ten places. The application also includes a total addition of 7,500 compressor horsepower in four existing stations. Estimated cost of the proposed facilities is \$11.6 million, and will be used to furnish increased demands of existing customers, whose house-heating loads continue to expand.

● **Ohio Fuel Gas Co.:** Authority to construct and operate additional natural gas storage facilities in Ohio has been granted Ohio Fuel Gas by the FPC. Included in the authorization is the development of the newly proposed McArthur storage field in Vinton County, 15.1 miles of pipeline and a 3,300 horsepower compressor station. Two additional storage pools will be activated and developed in the Holmes storage field in Holmes, Wayne and Ashland Counties including the installation of 16.4 miles of pipe. At the Wellington storage compressor station in Medina County, rated capacity will be increased by 1,120 horsepower. Cost of the added facilities is estimated at \$2.5 million.

● **Southern Natural Gas Co.:** The FPC has authorized Southern Natural Gas to construct and operate 10.5 miles of pipeline, measuring stations and 3,220 additional compressor horsepower capacity to existing stations in Louisiana. Estimated to cost \$1.5 million, these facilities will tap additional natural gas reserves in the Napoleonville field, Assumption Parish, and the Fort Jackson field, Plaquemines Parish, La., for the use of present customers.

● **Texas Illinois Natural Gas Pipeline Co.:** The company has been authorized by the FPC to construct and operate natural gas facilities in Illinois at an estimated cost of \$1.7 million. The authorization includes approximately 10 miles of pipeline looping an existing line from a point on the north bank of the Illinois River to the Joliet regulator station, serving the Chicago area. Proposed loop line is required to maintain adequate pressure to transport a larger volume of gas to the Chicago market during the 1957-58 winter season.

● **Transcontinental Gas Pipe Line Corp.:** The company is seeking FPC authorization

to construct and operate natural gas facilities to enable it to sell an additional 76 million cubic feet of gas daily to present customers and to supply four new customers with more than 35 million cubic feet per day. Proposed facilities include 57 miles of 36 and 30 inch main line loops, 229 miles of various size sales laterals, seven new intermediate compressor stations with a total rated capacity of 81,820 horsepower, and the addition of 36,940 compressor horsepower to existing stations. The new facilities are estimated to cost \$61.5 million. New customers are the Atlantic Seaboard Corp., Central Virginia Gas Co., Virginia Electric & Power Co., and Eastern Shore Natural Gas Co., which proposes to sell part of its allotment of gas to the Delaware Power & Light Company.

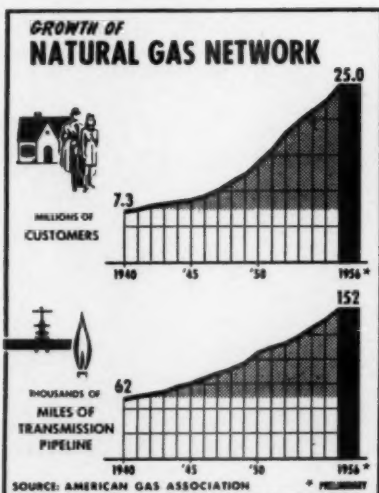
● **United Gas Pipe Line Co.:** The FPC has received an application from the company requesting authorization to construct a 40 mile pipeline from a point in Baldwin County, Ala., to a pulp and paper mill of the Container Corporation of America located near Brewton. Container Corporation will reimburse United Gas Pipe Line the estimated \$1.1 million cost of these direct service facilities, and will consume 1,750 million cubic feet of gas annually during each of the first three years of operation.

## Rate cases

● **Natural Gas Pipeline Company of America:** The company has applied to FPC for a \$5.4 million, or 10½ per cent, annual wholesale natural gas rate increase applicable to 17 wholesale customers in Kansas, Illinois, Indiana and Wisconsin beginning March 11, 1957. Besides claiming a 6½ per cent rate of return, and citing the usual reasons, such as higher operating expenses, depreciation and taxes as a premise for increased rates, the company also contends that proration in Texas resulted in gas purchased from other sources at prices higher than the 9.67 cents per Mcf commodity value of its own production. A prior rate increase amounting to \$10 million annually has been collected, subject to refund, since March 2, 1955.

● **Columbia Gas System:** Five of the Columbia Gas System companies have filed proposed wholesale natural gas rate increases with the FPC amounting to a combined total of nearly \$20 million. United Fuel Gas requested an \$11 million increase annually, raising revenues 10 per cent and affecting six customers in West Virginia, Kentucky, and Ohio. Kentucky Gas Transmission proposes to raise rates to its 10 customers in Ohio and Kentucky by 8.3 per cent, or \$2.4 million annually. Atlantic Seaboard's 8.2 per cent proposed increase would affect 13 customers in Virginia, Maryland, District of Columbia, Pennsylvania and West Virginia and would add more than \$4 million a year in revenue. Manufacturers Light & Heat es-

## System expands



The nation's expanding gas pipeline system added two million customers and 10,000 miles of transmission facilities in '56. Customers have more than tripled since '40, and service has been extended to 13 more states for a total of 46



estimates a 7.3 per cent increase in rates would result in an over-all increase of \$1.8 million annually for its 25 customers in Maryland, New Jersey, New York, Ohio, Pennsylvania and West Virginia. Home Gas Company would increase its seven New York State customers' rates by 6.5 per cent, or \$673 thousand annually. All filings are based primarily on a proposed increase by Tennessee Gas Transmission which totals \$24 million per year and which has been suspended by the FPC. United Fuel Gas also cited higher transportation costs imposed by Gulf Interstate Gas. Among other reasons for seeking rate relief were higher cost of labor, taxes and materials. All five subsidiaries are claiming a 6 3/4 per cent rate of return. Michigan Wisconsin Pipe Line Company has filed a proposed \$2.8 million, or 4.9 per cent annual wholesale natural gas rate increase with the FPC. Effective date would be April 15, and would affect 21 wholesale customers in Michigan, Missouri, Wisconsin, Illinois and Iowa. Proposal is based on increases in cost of gas purchased from Phillips Petroleum, and the cost of facilities required to serve newly authorized markets. The increase would be in addition to a \$4.1 million annual increase effective last November and being collected subject to refund.

● **Northern Natural Gas Co.:** The company has applied to the FPC for a proposed \$6.5 million annual wholesale natural gas rate increase to become effective March 7, 1957. Northern Natural claims present rates fail to recover cost of service. Proposed rates would increase cost of gas 5.6 per cent annually for 36 customers in Iowa, Kansas, Minnesota, Nebraska and South Dakota, and would be over the zone rates established by the FPC last July in settlement of a prior rate proceeding. That settlement permitted Northern Natural to increase rates above those effective prior to December 27, 1954, by about \$4 million a year, almost a half of the requested \$8.1 million increase.

In other rate actions, the FPC suspended, pending hearing and decision, a proposed \$24 million, or 12.7 per cent annual wholesale natural gas rate increase proposed by the Tennessee Gas Transmission Company. Also suspended were proposed rate increases of three customer companies attempting to pass along Tennessee Gas Transmission's price hike. The FPC said the company's proposed adjustment to purchased gas costs, change in rate of return, and change in book depreciation rate represents a change from past practices which may not be justified. Also the change in method of allocating

#### SUMMARY OF INDEPENDENT GAS PRODUCER RATE FILINGS—JANUARY 1957

	Number	Annual Amount
Tax rate increases allowed without suspension	6	\$ 6,703
Other rate increases allowed without suspension	179	903,181
Rate increases suspended	17	825,143
Total rate increases	202	1,735,027
Tax rate decreases allowed without suspension	19	5,253
Other rate decreases allowed without suspension	1	913
Total rate decreases	20	6,166
Total rate filings	597	—
Total rate filings acted on from June 7, 1954 to January 1957	19,934	—
Rate increases disposed of after suspension	—	—
Amount allowed	—	—
Amount disallowed	—	—
Amount withdrawn	—	—
Rate increases suspended and pending as of January 31, 1957	375	\$26,473,453

costs between zones may be unduly discriminatory and preferential. If hearings are not concluded by July 14, 1957, the increases in each case may become effective subject to refund.

## C. S. Stackpole urges more 'partnerships' with LP-Gas dealers

COOPERATION between city gas utilities and independent LP-Gas dealers should help the gas industry achieve the projected sale of 290 million gas appliances by 1975. This prospect was envisaged by C. S. Stackpole, A. G. A. managing director, in an address before the Northeastern regional meeting of the Liquefied Petroleum Gas Association at the Hotel New Yorker in New York City on Feb. 12.

Approximately 900 LP-Gas dealers from 14 Eastern states attended the three-day meet-

ing, which included a trade exhibit at the nearby New York Trade Show Center.

Mr. Stackpole said that "partnerships" between the utilities serving gas from their mains and bottled gas dealers serving the suburban "fringe" areas are on the increase. Such "partnerships" are already organized in Miami, Fla.; Chicago; Los Angeles; the Merrimac Valley area of Massachusetts and New Hampshire; eastern Nebraska, Oklahoma and Alabama.

Cooperative efforts in promotion and adver-

tising have received a new spur, he said, since the formation of the Gas Unity Committee. This group, composed of representatives from LPGA, A. G. A., and Gas Appliance Manufacturers Association, has been set up to encourage such joint action on local levels.

Mr. Stackpole told the LP-Gas men of some of the activities of the gas industry through the PAR Plan, and urged his listeners to keep their floor models and selling methods abreast with the current developments in improved gas appliances.

## Two Canadian utilities start construction on office building

NORTHWESTERN UTILITIES, Ltd., and Canadian Utilities, Ltd., are starting construction of a major office building in downtown Edmonton, Alta., Canada. Five floors and the basement of the 12-story building will be occupied by the utilities; the rest will be rented.

The building will be known as The Milner Building, in honor of H. R. Milner, who was president of both companies from 1932 to

1949, and has been chairman of both companies since then.

It will be air conditioned throughout. Cooling will be provided by a central absorption refrigeration unit. Inside temperatures and humidity will be controlled at each wall outlet. The primary air will be supplied by modular window sill units on exterior walls and through diffusers located on central corridors. Plans call for a high velocity system for the

peripheral units. Special air conditioning consideration will be provided on the second floor of the annex where mechanical accounting machines will be located. Efficient operation of this equipment depends upon close temperature and humidity control.

Other special features are a heated sidewalk and driveway, a drive-in window for bill-paying, appliance display areas, and a test kitchen with modern gas appliances.

## New Robertshaw center

ROBERTSHAW-FULTON Controls Company is starting construction of a \$250,000 Western Research Center, to be located on a five-acre site and having 15,000 square feet of floor space. The new center will carry on basic and applied research in the fields of automatic controls for air conditioning, home heating, domestic and commercial water heating, cooking, food preservation and home laundering appliances. In 1954, Robertshaw-Fulton opened a \$1 million research center at Irwin, Pa., devoted to research in automatic controls for home and industry. The new center will engage in the same fields of interest, but with emphasis on the Western point of view.

## Gas film

A 16 mm. color film telling the story of Alberta's natural gas utility companies, "Meet Your Gas Company," has recently been released by Northwestern Utilities, Ltd., and Canadian Western Natural Gas Co., Ltd. The film was produced by these two major Alberta gas companies to show how gas utilities operate and the contribution that natural gas is making to the development of the province. This film, believed to be the first movie made on Alberta's important natural gas industry, is now getting wide distribution through the company film library departments, the Department of Education and the University of Alberta film distribution service.

## Petroleum bibliography

A BI-MONTHLY INDEX of literature and data pertinent to oil industry operations entitled National Petroleum Bibliography has just been started. More than 400 publications per issue, predominantly technical and trade journals, will be indexed in the publication. It also includes current books, technical papers, maps, and various special publications of oil and gas agencies and institutions. It is aimed at executives, petroleum technologists, and researchers. Subscription cost is \$35 a year. A sample copy of the 121-page first edition may be obtained from: National Petroleum Bibliography, Box 3586, Amarillo, Texas.

## Council elects Mikula, Lewis, and Dawson



Retiring chairman of the Midwest Industrial Gas Council (from left) J. R. Woodfill, of Northern Indiana Public Service Co., congratulates new council officers. The officers, elected at the Jan. 18 meeting in Chicago, are: Chairman J. H. Mikula, Milwaukee Gas Light; Vice-Chairman C. G. Lewis, Northern Illinois Gas; and Secretary-Treasurer F. J. Dawson, Peoples Gas Light & Coke.

## Ohio Fuel honors 25-year safe drivers at company dinner

**F**ORTY-ONE Ohio Fuel Gas Co., Columbus, employees who have driven company cars 25 years without an accident were honored recently by Ohio Fuel at a dinner in Columbus. Each of the 41 received a \$25 defense bond, framed certificate, lapel pin, and a "safe driver" identification card from E. D. Bivens, vice-president and general manager of Ohio Fuel.

Gordon Jeffrey, director of the state's Department of Highway Safety, commended the group for its contribution to the prevention of auto accidents on Ohio's highways.

The gathering marked the first meeting of a yet-to-be-named "safe driver" organization, patterned after Ohio Fuel's Quarter Century Club.

The 41 who will be charter members of the

## Wood plans expansion

**J**OHAN WOOD CO., manufacturer of steel products, has just purchased a 16-acre tract of undeveloped land in Florham Park, N. J., for future expansion of its engineering and research division. The new site will be available for other corporate purposes as needed by the company. No date has been set for construction of the new research and engineering facilities; however, preliminary approval has been secured for the project from the Florham Park Planning Board.

## Booklet for customers

**A** BOOKLET explaining why customer service bills vary has been published by The Connecticut Light and Power Company in three forms: for straight gas customers, combination customers, and straight electric customers. The booklet, which will be widely circulated, explains in easy-to-understand language that at certain times of the year the various appliances are used more often than at other times. It is expected that this booklet will answer customers' questions arising from, for instance, higher-than-usual service bills in February when the cold weather of January has been forgotten.

safe driver group have driven more than 10 million miles without an accident, or the equivalent of about 410 trips around the world at the equator.

A committee was named to select candidates for office in 1958. Membership in the new group will be automatic in the future for each Ohio Fuel employee after 25 years of accident-free driving.

## New Jersey Natural gives course on gas appliance servicing

**A** COMPREHENSIVE COURSE in the servicing of all types of gas appliances is being given to the 153 customer servicemen of the New Jersey Natural Gas Co., Asbury Park. The training program calls for a new group of seven or eight servicemen each week to get six days of intensive practical work on all

types of new gas appliances under the direction of Harry McConnell, the company's utilization engineer. The program will cover a period of 20 weeks to include all servicemen. In addition to receiving a detailed explanation of the theory of proper gas burning, the men actually work on connected gas appliances of

different makes. The week-long course is divided into 40 periods, during which the men learn about subjects such as burners, pilots, valves, regulators, timing clocks, inspections, electronic controls, pressure, specific gravity, and British thermal units. Also included is a course on the company's structure.

## Ohio Fuel Gas sponsors Columbus home planning clinic

**T**HE FIRST annual Columbus home planning clinic for prospective home builders and buyers was sponsored by The Ohio Fuel Gas Company every Thursday evening from Feb. 21 through April 4. More than 20 local experts in home design, construction, and home planning participated. The public

was invited to the seven-session clinic.

Presiding at the clinic was Mel K. Armbrust, president of Melvon, Inc., a Columbus architectural and home construction firm. The final clinic meeting will include a visit to a newly constructed home designed by Mr. Armbrust, to see the results of careful planning, con-

struction, and decoration.

Topics for each of the first six sessions are: getting the most for your money; considerations in home design; planning the kitchen and laundry; basic mechanical requirements; decorating, inside and out; and the decision—to buy or to build.

## New A.G.A. catalogue lists films for gas industry employees

### a PAR activity

**A** COMPREHENSIVE film guide has been prepared under the PAR Public Information Program to help member companies develop greater employee understanding of the investor-owned gas industry—one of the major objectives of this PAR Program.

The guide lists and describes public rela-

tions films produced by member gas companies, together with selected films from the A. G. A. Visual Aids Library, and non-gas industry films that touch upon gas industry operations or the American competitive economy and its benefits.

Only 16mm. sound films are listed. The majority of them are available on a free-loan basis, and are less than five years old.

All films are listed in both an alphabetical index and a guide to film content. Reviews are classified under the categories of exploration and production, transmission, distribution, rates and other basic information, and ways in which gas is used.

Copies of the guide may be obtained free of charge from the A. G. A. Public Information Bureau.

## Annual reports, industry summaries, show '56 biggest gas year yet

**GAS INDUSTRY** statistics skyrocketed in '56, and are still on the increase. Total operating revenues of U.S. gas utility and pipeline companies climbed to about \$5.9 billion—net operating revenues to \$755 million. The total assets of the industry reached an overwhelming \$17½ billion. Natural gas reserves rose to almost 238 billion cubic feet, and natural gas net production to over 10 billion cubic feet. Gas companies, collectively and individually, surpassed all records, as indicated by the following round-up of annual reports.

• **Citizens Gas and Coke Utility:** Gas revenues of \$10.4 million, gas sales of 15 million cubic feet, and customers numbering 150,000 are listed in the Citizens 1956 annual report. All are increases over 1955.

• **Columbia Gas System:** Consolidated net income of Columbia and its subsidiaries rose 39 per cent, to \$29.7 million. Gross gas revenues reached a new high of \$335 million, a giant share of the total gross revenues of \$343 million. The 605 billion cubic feet of gas sold during the year also represented a new high. Over 1.3 million customers were served.

• **Consolidated Natural Gas Co.:** The annual report for Consolidated and its subsidiaries sets 1956 total gas sales revenues at \$258 million, gas sales at 468 million cubic feet, and customers at over a million—all higher than the year before. The report mentions extensive use of advertising by the system's companies, including participation in "Playhouse 90" sponsorship.

• **Consumers' Gas Company of Toronto:** For the year ended Sept. 30, 1956, Consumers' had total gas sales operating revenues of \$15.5 million, and total gas sales of almost 9 billion cubic feet. The increased sales are partially attributed to voluntary rate reductions and the addition of over 13,000 househeating customers. Consolidated net income was about \$1.2 million.

• **Dayton Power and Light Co.:** Gas statistics in the Dayton annual report show operating revenues of \$24.7 million, sales of 37 billion cubic feet, customers numbering 176,000—all up from the year before.

• **Laclede Gas Co.:** Operating revenues (for the year ended Sept. 30) reached \$44.6 million, highest in the company's history. Construction expenditures required to meet the growth in business carried the company's property investment above \$100 million for the first time. Customers numbered 364,000. Laclede reports that it expanded promotional activities, and won top honors in the PEP Campaign.

• **Niagara Mohawk Power Co.:** Gas revenues (one-fifth of total revenues) exceeded \$50 million for the first time in the company's history. Natural gas sales were

19 per cent higher than the year before. There was, however, a decline in consolidated net income due to increased costs.

• **New Jersey Natural Gas Co.:** In the year ended Sept. 30, net income increased 28 per cent, for a total of over \$1 million. Revenues from the sale of gas went up 18 per cent to \$11.5 billion, the largest single year's percentage rise in revenue from sales. Total gas sold was over 6 billion cubic feet.

• **Northern Illinois Gas Co.:** In its first year as a separate company, Northern Illinois revenues were almost \$80 million, an increase of 15 per cent. Net operating income was over \$11 million, net income over \$9 million, both increases over 1955. Total sales of gas in therms rose 10 per cent over 1955.

• **Northern Natural Gas Co.:** Northern Natural and its subsidiaries showed an increase in both total and gas sales operating revenues—the latter figure surpassed \$108.7 million. Net operating income was almost \$21 million, also an increase over 1955. The company's sales volume reached a new high of 326 billion cubic feet.

• **Panhandle Eastern Pipeline Corp.:** Total operating revenues reached a new high of over \$112.6 million; net income also reached a new high of over \$19 million. Panhandle spent about \$10 million for new construction in 1956, exclusive of well-drilling costs.

• **Peoples Gas Light and Coke Co.:** Peoples Gas and its subsidiaries report a consolidated net income of over \$15 million, high-

est in the company's history. Amounts received by Peoples Gas alone from sales of gas surpassed the \$100 million mark, a considerable increase over 1955.

• **Texas Eastern Transmission Corp.:** Revenues from gas sales nearly reached \$165 million, an all-time high for the company. A major construction project started in 1956 will increase the system's capacity by about 20 per cent.

• **Texas Gas Transmission Corp.:** Consolidated gross revenues reached a new high of over \$80 million; consolidated net income also reached a new high of \$7 million. The company completed an expansion program designed to increase system sales capacity to over 1.2 billion cubic feet daily.

• **United Gas Corp.:** Consolidated net income amounted to \$29.4 million, up \$3.2 million over 1955, and higher than in any previous year. Natural gas operating revenues of United Gas and subsidiaries reached almost \$223.7 million, another record high.

• **Westcoast Transmission Co.:** Westcoast reports that 70 per cent of its 650-mile line was completed, and it is expected that the company will be exporting initially 300 million cubic feet of natural gas a day to U.S. markets early this fall.

• **Wisconsin Public Service Corp.:** Wisconsin gas operating revenues reached over \$6.6 million, almost a \$1 million increase over 1955. It was estimated that nearly half of the 8,000 additional space heating customers allocated in 1956 had been sold installations by the end of the year.

## Ohio Fuel district wins A.G.A. safety award



Harold Conkle (l.), chairman of Ohio Fuel's General Safety Committee in Wooster, Ohio, and H. F. Enkemann, production superintendent, display A. G. A. safety merit award presented to the northern production district employees, who worked over a million manhours without a disabling accident



## Baltimore elects Wolfe president, Penn executive vice-president

**J** THEODORE WOLFE has been elected president of the Baltimore (Md.) Gas and Electric Company. He succeeds Charles P. Crane, formerly chairman of the board and



J. Theodore Wolfe



Austin E. Penn

president, who was re-elected chairman of the board.

Austin E. Penn, formerly vice-president, was advanced to executive vice-president, succeeding Mr. Wolfe in that office. Other newly elected officers are Raymond H. Arndt, vice-president, Alfred P. Ramsey, vice-president and general counsel, and C. Edwin Bristor, assistant vice-president.

Also re-elected were Mason C. Albright as vice-president and general sales manager, Herman L. Gruhn and Abbott L. Penniman Jr. as vice-presidents, F. Edward Rugemer as treasurer and assistant secretary, Otis E. Smith as secretary and assistant treasurer, and

Omar K. Boyd and Edwin J. Knight as assistant secretaries and assistant treasurers. All of the 15 incumbent directors were re-elected at the stockholders' meeting.



Raymond H. Arndt

Mr. Crane, who had served successively as vice-president and executive vice-president, was elected president of the Baltimore company in 1950 and had also held the office of board chairman since 1955.

Mr. Wolfe joined Baltimore in 1932 after completing his studies at the Pennsylvania State University and Harvard University Graduate School of Business Administration. He started work in the company's accounting service department, but was soon transferred to a staff position in the executive offices. He was elected assistant vice-president in 1942, vice-president in 1946 and executive vice-president in 1950. He is also a director of the A. G. A. and a member of its Executive Committee.

Mr. Penn was employed by the company in

1920. Continuing his studies at night under the company's educational assistance plan, he completed his high school course, then studied accounting in the YMCA schools and law at the University of Maryland. He became a Certified Public Accountant in 1929 and was admitted to the bar in 1934. He was elected assistant secretary and assistant treasurer of the company in 1939, secretary and assistant treasurer in 1946, and vice-president in 1950.

Mr. Arndt, a graduate of the University of Illinois, joined the Baltimore company in 1931 after eight years of experience with the Rockford (Ill.) Gas Light and Coke Company.

He was made superintendent of gas manufacturing in 1938, assistant general superintendent in 1950, and general superintendent of gas operations in 1951.

Mr. Ramsey graduated from Thiel College in western Pennsylvania, and then studied law at the University of Minnesota and at Yale, receiving his LL.B. degree from the latter.

After two years' experience with the Sioux Railroad in Minneapolis, he was employed as an attorney by the Baltimore company in 1924. He was made assistant general counsel in 1932 and general counsel in 1948.

Mr. Bristor entered the company in 1914 upon graduation from the Baltimore Polytechnic Institute. After serving in various responsible positions he was appointed executive assistant to the president in 1950.

Personal  
and  
otherwise

## Avery declines re-election

**S**EWELL L. AVERY, after serving continuously for the last 24 years on the board of The Peoples Gas Light and Coke Co., has asked that his place on the board be filled by a younger man and that his name not be submitted as a nominee for re-election. Mr. Avery, 84 years old, is former chairman of both Montgomery Ward and U. S. Gypsum. The name of Arthur M. Wood, vice-president and secretary of Sears Roebuck, will be submitted to stockholders for approval as a nominee to fill Mr. Avery's position.

## Schmidt chief engineer

**K**ARL E. SCHMIDT was recently appointed chief engineer of the American Natural Gas Company system. At the same time Mr. Schmidt, vice-president and engineer of Michigan Consolidated Gas Co., was elected vice-president and engineer of Michigan Wisconsin Pipe Line Co., American Louisiana Pipe Line Co., and American Natural Gas Service Company. Each of these companies is a subsidiary of American Natural. Mr. Schmidt, a 21-year employee of Michigan Consolidated, is a member of the American Gas Association.

## Robert LeMay heads contract research sales division at Selas

**A** NEW CONTRACT research sales division under the direction of Robert C. LeMay has been established at Selas Corporation of America.

Recent company expansion of laboratory facilities and personnel enables Selas to undertake contract research projects in addition to

the research department's normal functions in research and development.

Mr. LeMay has been associated with industrial heat processing since his graduation from Yale in 1932. He joined Selas in 1949. Since then, in sales and sales engineering capacities, he has been active in the development of a

number of improved heat processes, including continuous aluminum melting and continuous high-speed brass strip annealing.

He is a member of the A. G. A. Hall of Flame, and is currently vice-chairman of the industrial gas equipment division of the Gas Appliance Manufacturers Association.

## Roberts gains responsibility for Texas Gas operating departments

**R**ESPONSIBILITY for the executive direction of the operating departments of Texas Gas Transmission Corp., Owensboro, Ky., has been assigned to Vice-President A. L. Roberts. As vice-president in charge of operations, he succeeds the late L. E. Ingham, who retired on Feb. 1 and who died March 3.

Mr. Roberts was employed by Missouri-Kansas Pipeline Co., a predecessor of Texas

Gas, in 1930 as district superintendent at Bowling Green, Kentucky. He later served in the same capacity with Kentucky Natural Gas Corp., another Texas Gas predecessor.

When Kentucky Natural and Memphis Natural were merged into Texas Gas in 1948, supervision of construction of the company's new large-diameter pipeline system from Texas and Louisiana to Ohio was assigned to

Mr. Roberts. He was appointed general superintendent of the Texas Gas system in 1949, and the Texas Gas board of directors elected him vice-president in April 1956.

Mr. Roberts is serving this year as vice-chairman of the Transmission Committee of the American Gas Association, and has served as chairman of the transmission section of the Southern Gas Association.



## Henderson retires as Ann Arbor general manager; Hogan succeeds

CHARLES R. HENDERSON has retired as general manager of Michigan Consolidated Gas Company's Ann Arbor district, and will continue his association with the company as chairman of its Ann Arbor district advisory board. Succeeding him as district general manager is Jack D. Hogan.

A veteran of 51 years in the gas utility business, Mr. Henderson worked for the old Washtenaw Gas Company for eight summers starting in 1906 while he was in high school and college. After graduating from the University

of Michigan, he joined the company on a full-time basis as a chemist, and in 1920 was named assistant superintendent of the gas manufacturing plant.

Mr. Henderson became general manager of Washtenaw and was appointed to its board of directors in 1924. He was promoted to vice-president and general manager in 1929, and became president in 1932. He remained in that post until the company became part of Michigan Consolidated in 1939. He served on the board of directors of Michigan Consolidated

for several years, and has been a member of the local advisory board since 1938.

Mr. Henderson is a past president of the Michigan Gas Association and a member of the American Gas Association.

Mr. Hogan began his utility career in 1937 when he joined Michigan Consolidated as an accountant. Since 1948 he has been office manager and an assistant treasurer of the company. He graduated from the University of Michigan in 1932. Mr. Hogan has served as chairman of several A. G. A. committees.

## A.G.A. appoints Cunningham, Giaccone, Sarno to Headquarters staff

THE American Gas Association has announced the appointment of three men to positions in its Headquarters office in New York City.

Samuel J. Cunningham has been named research assistant in the Research Bureau. Last associated with Cities Service Oil Company in New York, he is a graduate of Penn State Uni-

versity with a B.S. degree in petroleum natural gas engineering in 1948.

Joseph F. Giaccone joins the staff of the Bureau of Statistics after 10 years with the American Transit Association in New York, most recently as assistant to the director of the ATA statistical department. He attended City College of New York and New York Stock

Exchange Institute.

W. Roger Sarno, New York City, has been added to the Utilization Bureau as assistant utilization engineer specializing in heating and air conditioning. He received a Bachelor of Mechanical Engineering degree from New York University in 1950 and, was last with Babcock & Wilcox in New York City.

## Names in the news—a roundup of promotions and appointments

### MANUFACTURERS

John A. Robertshaw Jr. has been elected a vice-president of Robertshaw-Fulton Controls. Mr. Robertshaw, a grandson of one of the founders, has been associated with Robertshaw since his school days. He has been in charge of foreign operations since 1952, and was made an assistant vice-president in 1954.

Frederick M. Jackson has been named vice-president in charge of sales for the Walworth Company. He joined Walworth in 1926, becoming Eastern divisional manager in 1940, vice-president for oil and gas industry sales in 1952.

W. Thomas Gettig, general manager of Rockwell Manufacturing Company's Barberton (Ohio) valve plant, has been named assistant to the vice-president in charge of the meter and valve division. He will assist in maintaining liaison among all Rockwell valve plants. Succeeding him at Barberton is Elton H. Sellers.

American Meter Company announces five recent promotions. Three are sales representatives—Roy C. Mitchell, who will work in the Rochester (N. Y.) area, Donald E. Kohart, who will work in the Boston sales district, and John Q. Vreeland, who will work in the Wynnewood (Pa.) sales district. Bynum C. Jacobsen has been named sales engineer in the Chicago sales district, and Clifford E. Saylor has been named engineer in the telemetering department at the company's Erie (Pa.) plant.

### UTILITIES

New York State Natural Gas Corporation announces the election of Arthur R. Blotter as treasurer, and William S. Beatty as assistant treasurer. Mr. Blotter began working for Peoples Natural Gas Co., sister company of New York State Natural, in 1938, in the firm's tax department. He was transferred to New York State Natural in 1951 as chief accountant, and became assistant treasurer in

1953. Mr. Beatty began service with Peoples Natural in 1939.

Joseph R. Rensch has been appointed assistant counsel of Southern Counties Gas Company. Mr. Rensch, an engineer as well as an attorney, was superintendent of the production control department of Dow Chemical prior to his new position. He had previously worked for seven years with another utility.

### PIPELINES

Appointment of Ernest F. Semrad as assistant chief engineer of Michigan Wisconsin Pipe Line Company and of American Louisiana Pipe Line Company has been announced. He joined Michigan Wisconsin in 1949 after 15 years' experience with other gas transmission companies. James J. Trebilcock has been named assistant manager of operations at Michigan Wisconsin. He had been administrative assistant to the manager of operations since 1950.

## Hartford Gas elects Bertollette board chairman, Jebb president

THE Hartford (Conn.) Gas Company announces that Norman B. Bertollette was elected chairman of the board, and vice-president and general manager; William T. Jebb was elected president.

Mr. Jebb, who becomes chief executive officer, was vice-president and general manager of the company since January 1954, and has had over 30 years' experience in gas utility operations. He is a graduate of Haverford College, and after graduate work at Lehigh University, served The United Gas Improvement Company and its subsidiary properties. Prior to coming to Hartford, he was western division manager of The Connecticut Light and Power Company in Waterbury.

Mr. Jebb is president of the Society of Gas Lighting and a director of the New England Gas Association. He is also a member of the American Gas Association.

Mr. Bertollette has been president of the

company since 1935, when he resigned from the presidency of the Harrisburg (Pa.) Gas Company. He graduated in mechanical engineering at Drexel Institute of Technology in Philadelphia, and was division manager of Philadelphia Electric Company and UGI subsidiaries prior to 1930.

Mr. Bertollette has been an active member of A. G. A. since its formation. He is a former director and chairman of the PAR Committee and is presently chairman of the A. G. A. Laboratories Managing Committee.

He is president of the Connecticut Electric and Gas Association, and a past president of the New England Gas Association, and the Society of Gas Lighting.

Three other executives were advanced. Treasurer Fred S. Pickford was elected vice-president and treasurer; Archer B. Hamilton was elected vice-president, operations; and A. Chandler Taylor was appointed general super-



N. B. Bertollette



W. T. Jebb

intendent, operating department. Mr. Pickford Gas in 1928, after his graduation from company in 1934. Mr. Hamilton joined Hartford, formerly an accountant, joined the Yale University. Mr. Taylor, a graduate of Cornell University, joined the company in 1936. All three are active members of A. G. A.

## Georgia Natural elects Sholar president



John O. Sholar

**J**OHAN O. SHOLAR has been named president of South Georgia Natural Gas Company.

Mr. Sholar was formerly executive vice-president of the company, which furnishes natural gas to 15 cities and a number of industrial concerns in Georgia and

northern Florida. The system includes approximately 400 miles of pipeline.

Mr. Sholar served as vice-president of the South Carolina Natural Gas Company and manager of the gas department of the South Carolina Electric and Gas Company for about six years before coming to Thomasville to join the new South Georgia Natural Gas Company at the time of its organization in February 1955.

He is a member of both the American and Southern Gas Associations, and a past president of the Southeastern Gas Association.

## Name Morgan

**P**ATRICK N. MORGAN has been named assistant to the vice-president and general sales manager of the heater and tank division of John Wood Company. Mr. Morgan's immediate duties will be concerned with organizational and administrative matters in conjunction with the division's expanding sales force and broader product lines resulting from the recent purchase of the Fluid Heat line of equipment for home and industry. He was formerly manager of sales for heating and air conditioning products with Combustion Engineering, Inc.

## Central Hudson names Doolittle commercial relations vice-president

**J**ERNEST DOOLITTLE has been appointed vice-president in charge of commercial relations of the Central Hudson Gas and Electric Corp., Poughkeepsie, New York. Mr. Doolittle, a veteran of more than 35 years' service with the local utility, had been serving as assistant vice-president since April 1954.

He now fills the vacancy created by the retirement of Harris E. Dexter.

Mr. Doolittle joined Central Hudson as a cadet engineer in Poughkeepsie in 1923. The following year he was transferred to the Company's Kingston operating district, and in 1926 was promoted to operating superin-

tendent of the Beacon district. He returned to Poughkeepsie in 1927 as division commercial manager and was appointed Poughkeepsie district manager in 1929.

He is a graduate of Rensselaer Polytechnic Institute and a member of the American Gas Association.

## Connecticut Light and Power appoints five in gas department

**F**IVE ORGANIZATIONAL changes in The Connecticut Light and Power Company's gas department have been announced by H. M. Kopp, director of gas operations for the utility. All appointments became effective March 3. Kurt Richter, district gas engineer at Waterbury, was named to the newly created post

of gas planning engineer, reporting to Mr. Kopp at the general headquarters in Berlin. Francis R. Aiken, assistant engineer at Berlin, was appointed gas distribution engineer with headquarters at Waterbury. Urban C. Fleming Jr., an engineer at Berlin, was advanced to gas operating engineer, at Berlin.

Merton F. MacGregor, an engineer at Waterbury, was transferred to Berlin, assisting Mr. Richter and Mr. Fleming. William H. Barber Jr., assistant engineer at the Waterbury district office, was named engineer and transferred to the company's south gas plant at Waterbury.



### J. L. Eigenbrot

assistant to the president of the General Coal Co., Philadelphia, Pa., from 1928 until his retirement on Jan. 1, 1955, died last October.

Mr. Eigenbrot became an individual member of the American Gas Association in 1919, and remained a member until his death. He also served as General Coal Company delegate to A. G. A.

Before joining General Coal, he served for short periods with American Tar Products Co., Lowell Gas Light Co., and Laclede Gas Light Company.

Mr. Eigenbrot's wife, Margaret F. Eigenbrot, survives him.

### Lucius E. Ingham

65, who until his retirement Feb. 1 was vice-president and a member of the board of directors of Texas Gas Transmission Corp., died of a heart attack in St. Petersburg, Fla., last month.

With a 46-year career in the natural gas business, Mr. Ingham was a pioneer natural gas pipeline builder and operator.

While a stenographer with the United Natural Gas Co., Oil City, Pa., in 1910, he studied after hours to qualify as an engineer. He started his career as an engineer with the Iroquois Gas Corp., Buffalo, N. Y. He also worked in various engineering capacities in building early natural gas transmission and distribution lines with Natural Gas Engineering Corp., Columbia Engineering Corp., and Michigan Gas Transmission Corporation. He served as a vice-president of the Louisiana Natural Gas Corporation in Shreveport.

In 1939 he joined the Kentucky Natural Gas Corp., Owensboro, a predecessor company of Texas Gas, as assistant to the president. He became vice-president of Kentucky Natural in 1943, and continued as a vice-president of Texas Gas after it was formed in 1948 by a merger of Kentucky Natural with Memphis Natural Gas Company.

He directed the planning and construction of the 3700-mile large-diameter natural gas pipeline system of Texas Gas from Louisiana to Ohio. He had charge of operating the lines after their completion.

He is survived by his wife, Ann Brainard Ingham, a daughter, and a sister. He was a member of the American Gas Association.

### Thomas S. Lever

former vice-president of The United Gas Improvement Company and general manager of the Philadelphia Gas Works Division, died suddenly Feb. 5. He was 68 years old.

Mr. Lever devoted more than a half cen-

tury to the operations of the Philadelphia Gas Works prior to his retirement on December 31, 1955.

Mr. Lever had been a member of the American Gas Association from 1932 until his death, and was past president of the Pennsylvania Gas Association. He was a former director of the Controllers Institute of America, a former vice-president of the Philadelphia Chapter, National Association of Cost Accountants and an active member of the American Management Association. He was also active in local civic work.

During Mr. Lever's service with the Philadelphia Gas Works, which began with his employment as office boy, he directed many innovations in the company's rise to prominence in the utility field. His leadership and administrative abilities earned for him both national and international recognition in the gas industry.

Surviving are his wife Wilhelmina, a daughter, and a son.

### James G. Waddick

64, assistant to the vice president in charge of the customers relations division of The Peoples Gas Light and Coke Co., died Feb. 3.

Mr. Waddick had been employed by Peoples Gas for nearly 47 years, starting as a clerk at the age of 17.

He is survived by his wife Marguerite, four daughters, and 17 grandchildren.

He was a member of the American Gas Association.

## Honor de Coriolis

E. G. DE CORIOLIS was named "Engineer of the Year for 1957" by the Toledo (Ohio) Technical Council at the recent sixth annual Engineers' Week Banquet there. He has been associated with Surface Combustion Corporation for over 30 years, and as engineer, furnace designer, author, inventor and researcher, he has been a prominent figure on the industrial heating scene. Mr. de Coriolis is an author and holder of many patents in the industrial heating field. He has been director of research for Surface Combustion Corporation for the past quarter century. He has been active in American Gas Association Industrial and Commercial Gas Section committees and the American Gas Association Research Committee.

## Association names two promotion men

THE AMERICAN GAS ASSOCIATION has named Hayes S. Walter, for the past five years commercial cooking representative in the Industrial and Commercial Gas Section, as commercial promotion manager in its Pro-

## Rice promoted

GERDES W. RICE has been appointed director of purchases and materials for Lone Star Gas Company and its wholly-owned subsidiary, the Lone Star Producing Company. He succeeds Ben R. Newbery, who retired Feb. 28. Mr. Rice began his career with Lone Star in 1930, handling various assignments in the stationery, stores and purchasing departments until 1946 when he was transferred to the land department as agent. He served as assistant superintendent of the right of way and claim department from 1947 until 1950, when he was appointed superintendent of the department. Mr. Rice was named assistant director of purchases and materials last October. He is a graduate of Southern Methodist University.

## Stopford president



James C. Stopford

JAMES C. STOPFORD was recently elected president of the Honolulu Gas Co., Ltd. He had been serving as vice-president and general manager of the company.

Mr. Stopford started in the utility field in 1931 as process engineer for Pacific Refiners, a sister company of Honolulu.

The following year he was promoted to production manager, and in 1955 was elected vice-president of manufacturing and distribution. He served as vice-president and general manager of Honolulu since the death of A. E. Englebright last July.

A graduate of the Rice Institute, Mr. Stopford worked with Dun & Bradstreet from 1932-1936; Shell Oil, 1936-1947; and Delta Engineering Co., 1947-1951. He is a member of the American Gas Association.

## TV subcommittee

(Continued from page 17)

they would also be tested on their reaction to the commercials. Before the films were shown, the members of the audience were asked to indicate on cards their preferences for certain home appliances, both gas and competing products.

The cards were collected, and the program presented. During the program, the audience was shown three 60-second gas commercials, two range and one omnibus.

At the conclusion of the program, audience members again were asked to indicate their preferences on score cards. Taking the average for all three A.G.A. TV commercials, the over-all attitude of the viewers in comparing gas and electricity was approximately 50 per cent more favorable toward gas after the commercials had been shown. Mr. Sante quoted the Schwerin organization as saying that this is the greatest amount of "movement" it had ever seen from any test commercials.

Since this was only the first exposure to the commercial messages, the public's acceptance of gas should, by research standards, increase considerably more through reiteration of the theme that gas is modern, economical, clean and dependable.

The subcommittee then proceeded with the preparation of the second series of commercials which were filmed with Julia Meade a short time ago. The schedule of these commercials appears on page 17.

## Lone star

(Continued from page 9)

in the basic function of rendering better service with improved arrangement."

The public contact area in the first floor commercial section includes elimination of departmental functions such as applications, duplicate bills, deposit refunds, etc. Instead, these operations will be handled at any of 23 new customer contact "stations."

The flexible plan will help to eliminate waiting periods for customers during rush periods. Each desk in this area has a direct telephone line to the second floor section where individual customer records are handled so that information may be obtained quickly and the time required for each customer contact held to a minimum.

With simplification of basic information requirements from new customers,

the new procedures will also encourage increased telephone and mail handling of all types of customer service, including new applications.

Considered the "nerve center" of customer service, the telephone service section on the second floor has been redesigned to meet this growing trend, and will play an increasingly important part in the automated system of the future.

The unitized telephone service, established five years ago, divided customer accounts into alphabetical and numerical groups. With 13 operators receiving customer calls from the main switchboard according to address, the time element per call has been reduced approximately 50 per cent.

Each operator has access to 25,000 current account records without leaving her desk. Formerly they were required to leave their desks to look up records with which to complete the service calls.

A peak day often records about 2,000 completed calls through this department, with "holding" time on all calls virtually eliminated.

To expedite record searching by this section, the specially designed telephone service desks have been grouped in a horse-shoe arrangement around account record files. A total of over 1,500,000 records are housed in this area. A staff of 43 employees is required in the overall operation of this section.

New procedure has resulted in a minimum of time and effort required to obtain related information on all customer accounts.

It is anticipated that the future of this "nerve center" will require further expansion as growth of the city continues and customers become aware of the fact that Lone Star service is convenient service, most of which can be handled by telephone.



## Safety

(Continued from page 16)

years the frequency rate in our industry has been cut in half, and the severity rate has also shown nearly as good a record.

All this shows that safety work has certainly paid off. The total costs of accidents have remained about stationary due to the rise in wage rates during that time. The data further show that other industries have been making similar gains, so that in relation to the whole pattern, while our frequency rate as compared with other industry has shown a slight decrease, the severity rate relatively has increased tremendously. When we have an accident we are apt to have one that is serious.

Among the American utilities—gas, electric and communications—our frequency record is the worst, and among American industries generally we are some 50 per cent worse than the average and are only exceeded by the so-called "hazardous" heavy industries. Among our own gas industry there is an indication that the larger companies tend to have a slightly better record than the small and medium-sized companies, but the startling fact is that approximately one-third of the companies in our industry have two-thirds of the disabling injuries.

This fact gives us pause to reflect, for if two-thirds of our companies can do a good job there must be something wrong with the other one-third.

We must remember that we are here dealing with a most important influence aside from its cost. It can have a most unhealthy effect on our two most important problems, namely, our employee attitudes and that of the general public. This is the main point that I am anxious to stress—that it behooves us to do something about it. I have mentioned that it is a psychological problem and therefore a very complex one.

It seems strange that among employees, "Safety has to be sold," since they are the one to most benefit from it. Often-times too much pressure and harping on the subject create an antagonistic or negative result. And yet there is no more disturbing influence on employee morale than a bad safety record. If you have worked among a group of men who have seen one of their fellow workers carried off in a morgue wagon, you will understand the feeling that prevails in such a group for a long time.

I will again emphasize that the divid-

ing line between good and evil from certain drives of human nature, is very thin indeed. Safety work is one such subject, as many are, which involve the human equation. And yet the end result is so very worthwhile.

As mentioned earlier, good wholesome employees of the type to make our industry better, will shy away from starting out in an industry which they feel to be hazardous. We do not want "bravado," or the type who welcomes a chance to flirt with danger. Most employees are the right type, if they are properly led. Good stable employees, as well as their wives and children, will be a much more wholesome influence for good productivity, in a company whose safety record is a good one. There is less of the bitter, cynical employee attitude that can adversely influence morale. All this is so important in doing a good job in the service of our customers, which determines the future of our industry and our jobs.

Since the subject is such a complex and important one, it is vital that it not be directed by a "boy" steeped in statistics. I have already mentioned that the old days of ruling by fear and force are over. It must be directed by one who understands the workers, one who can get the employees' enthusiasm and endorsement of safe procedures. It's not easy, because often safe procedures are time-consuming and irksome. The frequent lack of use of rubber gloves in electrical distribution accidents, and the lack of use of gas masks in our gas industry, are splendid cases in point, in spite of rules to the contrary.

### Attitude important

Yet if the attitude of the employee is right these practices soon become instinctive and achieve the desired result. It isn't just a matter of rules, but rather one of what I call "Employee Acceptance and Attitude." We can furnish all of the best safety devices and tools, and have the best safety rules in the country. We can teach our men how to use the tools and how to interpret the rules. But until the employees are inspired to use them on their own initiative, they are of little use.

How to achieve that acceptance is the problem, and is proof of why this job must be handled with skill and understanding. It takes time, patience, and a thorough understanding of the workers' point of view. That is why some com-

panies have good records and others do not. I doubt if there is any operation in the company that is so much a function of the type of men directing it. Therefore, it is a subject that requires not only the consideration and interest of management, but is one of their most important duties since its results have no many ramifications.

Safety is one responsibility the chief executive cannot neglect. He must not only share this responsibility with everyone in his organization, but furnish inspired leadership to those who direct the company's safety program. The company's safety director must likewise be a top-level administrator, for this is no "boy's" job. I might mention that in our company our safety director is not only a qualified engineer, but a former commander in the Navy and at the present time also mayor of the City of Rochester. We consider the job of safety director a top-level assignment in our management team.

### A personal matter

However, far more basic than safety rules and procedures, safety slogans and contests, safety incentives and awards, is the need to develop an atmosphere or climate of managing and working forces voluntarily cooperating to attain higher economic and social goals. This is the same climate that fosters good human relations; this is the same climate that encourages in men a sense of responsibility to themselves, their families, and their fellow-workers; this is a climate for good safety progress.

Progress will be made if employees can "catch the spirit" that a safe procedure may someday save the life of a fellow worker, the breadwinner of a family, or even their own life, rather than being an irksome, unnecessary procedure. Such an attitude is not gained in a matter of weeks or months, but rather after years of healthy, intelligent leadership. If we all give our best in these directions we are sure to have many worthwhile benefits from it. At least we can sleep nights knowing that a very important phase of our duty has been done to the best of our ability.

It is in the realm of public relations that this subject is equally important, perhaps even more so. Our industry is facing a terrific battle for survival in the heating field; competitive forms of fuel are trying hard to invade our logical markets. Technically and practically we



have much in our favor and have a promising future. When our industry has an accident it is one which is apt to make headlines, with newspaper pictures, etc.

There has been a growing awareness of this which is being capitalized on by competing fuels. I do not have to tell you that such a growing attitude could be ruinous. You are familiar with the experience we had in Brighton. It would take a long time to tell you the steps we took to try to erase that memory from our customers' minds. But it can be done, but I assure you it takes a lot of doing in the practice of safety.

How much better it would be to take those steps ahead of time.

I am thoroughly convinced that constant practice in the direction of developing an attitude of careful, intelligent safety among employees can create an attitude of confidence in the minds of the consuming public. People like to do

business with such a company, and we should be able to continue to develop our future based on our inherent technical advantages. No great invention will solve this problem, but rather just the day-by-day simple practice of fundamentals that are sound, in the hands of skilled supervisors, is all that is needed to develop a climate toward safety.

In conclusion: If we have the right type of employees (and we generally do have them if they are properly led), and if we can only learn to excite the desire to do things the right way—the safe way—it can be contagious. It can produce a satisfaction among our employees and our customers that can help materially in solving the two biggest problems in our industry. A good safety record will do more than anything else to attract the right type of employee into our employment.

Therefore, do not treat this subject lightly and we can all sleep better

nights; countless breadwinners in the future will continue to provide for their families. Half of our waking hours are spent on the job, and they can be pleasant and safe. It is up to you to see that this climate develops. If it doesn't, there is no one to blame but yourself, and someone will have to tell a wife and mother that she is a widow; and someone will have to try to explain to an unsympathetic public why a home or family, or both, have been destroyed.

It is not only far easier but also far more satisfying to the stockholders, to the consumers, to the community, to the employees, and to you yourselves, to find the means of prevention. Such indeed is the highest type of management most certain to produce prosperity for your company and peace and satisfaction for yourselves. In addition to all this, you will have helped to make our free enterprise system a better system and America a better place in which to live.

## Water heaters

(Continued from page 21)

are permitted to don chef's uniforms and broil their own steaks on a modern gas range. They also are told the advantages of quality gas appliances. It is not sufficient to just install these appliances. The real estate people are included since they must know the advantages, and cash in by presenting them to prospective buyers in their sales presentation.

The progress of our campaign is shown by the following survey report of installed laundry-rated water heaters. The laundry-rated water heater is de-

fined as one which has the ability to deliver a minimum of 30 gallons of hot water per hour at 100° temperature rise. Also it must have a minimum 30-gallon integral storage tank.

During the second half of 1954, 8.1 per cent of the 1,103 new homes surveyed in our service area were equipped with laundry-rated gas water heaters.

During the first half of 1955, this figure stood at 7.8 per cent of the 2,018 houses surveyed.

During the second half of 1955, it had jumped to 28.9 per cent of the 2,050 houses surveyed.

During the first half of 1956, the per-

centage was 24.7 per cent of 1,033 houses surveyed.

During the second half of 1956, the percentage was 39.3 per cent of 3,081 houses surveyed.

While still relatively small, the number of new speculative homes equipped with laundry-rated gas water heaters is growing steadily.

Within the next two or three years, there is no reason why the percentage of new homes so equipped cannot be increased to as high as 75 per cent.

The advantages would be great—to gas companies, to builders, and to our customers.

## Rate changes

(Continued from page 23)

result of Federal Power Commission action lowering rates to a "just and reasonable" base.

An analysis of the means of effecting the 122 rate changes instituted by the privately owned natural gas utilities during 1955, indicated that for the most part utilities applied a varying change in blocks of their rate schedules. Another most widely used method in effecting the change in rates was changing the minimum or initial charge. Still another common method utilized by utilities to effect the rate changes was to change the size

of the consumption blocks.

Many utilities instituted purchased gas cost adjustment clauses, with Commission approval in order to recoup the increased cost of gas from suppliers. It is obvious that the procedures used in effecting needed rate changes will depend largely on the individual utility company's local circumstances.

The data contained in this survey refer only to sales to ultimate consumers by distributing companies and reflect the revenue effect of rate changes that have appeared in the A. G. A. Rate Service. They exclude changes in "city gate" rates and in rates charged by pipelines to main line industrial customers.

## NUMBER OF RATE CHANGES REPORTED 1947-1955

Year	Total	Increases	Decreases
1947	55a	42	3
1948	111b	99	4
1949	87	79	8
1950	111	52	59
1951	98	50	38
1952	142	99	43
1953	116	99	17
1954	176c	121	53
1955	156	108	48

a Includes 10 companies with over-all rate changes not indicated.

b Includes 8 companies with over-all rate changes not indicated.

c Includes 2 companies having no over-all rate change.

## GAMA conference

(Continued from page 11)

We've conducted matchless campaigns for the past three years, with this last being a combination matchless and "burner with a brain" promotion. Each time we've used a mystery shopper and this is the record of accomplishment.

Three years ago, when we first started shopping, the pay-off was eight per cent—about one in 12 salesmen told the kind of story we were looking for. Two years ago the pay-off jumped to 24 per cent, and it looked as if our strategy was really paying off. Last fall the pay-off skyrocketed to a wonderful 58 per cent. About six of every ten salesmen were found to be pitching gas ranges exclusively and enthusiastically.

As a sales incentive we organized a contest for dealer salesmen with cash prizes up to \$100 being offered for the sale of every two ranges. Did matchless and "burner with a brain" gas ranges sell? You bet they did! East Ohio paid out more than \$10,000 in prize money to dealer salesmen when 4,100 sales were reported and verified during this seven-week period. Forty-eight per cent of the sales were "burner with a brain" ranges, an amazing result in view of the fact that this was the first real effort in this direction in East Ohio territory.

This was a perfect example of our partnership at work. It involved, as you have seen, national publicity and advertising, the wholehearted participation of the 11 gas range manufacturers, hard work on the local level by the gas utility and finally, the cooperation of dealers. Only because the partnership was at work to such a high degree of efficiency were the results so highly satisfactory.

Let's take a quick look at Case History No. 2, pertaining to the great growth in popularity of built-in gas ranges over the past three years. For this activity, East Ohio has another 18 men who spend all of their time selling builders, architects, kitchen remodeling dealers, yes, and even following Dodge Reports and contacting just about everyone who is building a new home. It is their job

to persuade these groups to use gas for the seven major household uses with particular emphasis in the past two years on built-in gas ranges. In this field, too, we make generous use of our home service department.

We buy classified newspaper space in the real estate sections advertising an "All-Gas Home" each time a builder installs a gas built-in, uses a proper-sized water heater and will agree to display his house. In 1956 we succeeded in running almost 200 such "open houses" with more than 75,000 people visiting the homes and listening to the gas sales story as it was told by either an East Ohio builder man or home economist.

Results? Very satisfactory. With 10,000 to 11,000 new building starts in the market last year, with only about 15 per cent of all built-in sales going to remodeling, our record of 3,000 gas built-ins looks fine. It looks particularly good in view of the fact that three years ago only about 400 units were sold, and our competitors were outselling us two to one in the built-in market; that two years ago 2,000 units were sold and we were selling as many as the competition; that last year we jumped 50 per cent to 3,000 units, with sales of gas higher than electric.

We haven't really begun to crack the remodeling field yet as far as built-ins are concerned. What a vast potentiality East Ohio's 731,000 customers represent! But we haven't sold our prospects on the idea that these units are really not too difficult to install, that done modestly, possibly with starter sets which some cabinet manufacturers have available, they're really not too expensive. I'm sure you could help by pushing this easy, inexpensive concept editorially.

If I may, at a gas range press conference, introduce a couple of "foreign" gas appliances, I'd like to say a few words about gas dryers and gas incinerators.

The automatic clothes dryer, in spite of great strides made in acceptance since 1948, still needs plenty of selling to the American housewife. In East Ohio territory, for example, only 23 per cent of

our customers have dryers, gas or electric. A recent consumer survey, conducted by research department of East Ohio's advertising agency indicated that of the 77 per cent who do not have a dryer, 23 per cent or exactly as many as have them, said that they didn't want one and 18 per cent said they just didn't know whether they wanted one or not, so you can see that in Ohio at least, a lot of selling remains to be done.

And now, a sleeper—the gas incinerator! It's a new appliance, and wonderfully convenient, but only a few gas companies have tried to do anything with it. Here is a perfect example of an appliance that needs greater national endorsement and more widespread local promotion to realize an obvious potential. Some progress has been made in such cities as Detroit, Denver, Omaha, and Philadelphia.

Things are going pretty well in Cleveland—we're 13 per cent saturated—that's about 90,000 units. If East Ohio is a criterion, here is a product that could really go—with the proper promotion by the members of our team. Customer satisfaction with gas incineration is enthusiastic and almost unanimous. This might be a good one for you to think about.

Occasionally we in the gas business worry a little about the impression you people east of the Hudson might have about how we make out competitively. We're afraid that your opinions might sometimes be unduly influenced by the impressive show our aggressive competitors put on. Let me attempt to counteract in a small way such a feeling you may have by telling you how we fare at East Ohio.

Last year 188,000 gas appliances were sold in our area. Three of every four ranges sold were gas ranges. We have a 95 per cent saturation of gas water heaters, an 85 per cent saturation of gas for heating. In 1956, 30,000 gas dryers were sold to East Ohio customers—at least as many as the competition sold and 29,000 customers bought gas incinerators. So, you can see in Ohio our partnership is a real success. May we stay in business together a long time!

## New bulletin describes laboratory research facilities at Selas

A NEW BULLETIN entitled *An Approach to Interpretive Research* describes the laboratory facilities of the Selas Corporation of America at Dresher, Pa., which are available for contract research. In Bulletin S1053, photographs and text show Selas work in in-

vestigating basic problems of combustion chemistry, flame geometry, heat transfer patterns and rates; investigating and applying the principles of capillary physics and surface chemistry; developing basic tools, techniques, and materials to meet specialized thermal and

processing requirements; engineering specific processes to fulfill exact production objectives; and designing, constructing, and directing initial operation and maintenance of practical production equipment. The bulletin may be obtained free of charge from Selas.

## Facts and figures

(Continued from page 22)

to dominate the gas appliance field as well as other major "white goods." New housing starts of 65,000 units during January were off 13.3 per cent from a year ago and February starts as reported by the Bureau of Labor Statistics totaled 65,000 units, off 17.0 per cent from a year ago. The Labor Department's report on housing starts noted that this was the first time since December 1951 that the adjusted annual rate of home building dropped below 1,000,000 units.

Gas range shipments excluding built-ins during February totaled 150,800 units, down 15.5 per cent from last year. During this same period shipments of automatic gas water heaters totaled 208,100 units, off 19.7 per cent from the 259,200 units shipped the February before.

Shipments of 56,400 gas-fired central heating units during February declined 12.7 per cent from a year ago. During this same period, oil-fired burner installations were estimated at 39,628 units, down 15.5 per cent from the 46,872 units installed during February 1956.

Automatic gas clothes dryers shipped during January totaled 36,670 units, off 13.7 per cent from a year ago. Electric dryer shipments of 107,960 units were down 12.8 per cent from January of last year.

Gas appliance data relate to manufac-

turers' shipments by the entire industry compiled by the Gas Appliance Manufacturers Association. Industry-wide electric appliance statistics are based on data compiled by the National Electrical Manufacturers Association and are reprinted by GAMA in its releases. Data relating to oil-fired burner installations are compiled by *Fuel Oil and Oil Heat*. Data on both gas and electric dryer shipments are released regularly by the American Home Laundry Manufacturers Association.

Total sales of the gas utility and pipeline industry to ultimate consumers during January 1957 amounted to 8,813 million therms, an increase of 5.0 per

cent over sales of 8,393 million therms in January of last year. Sales of gas to industrial users increased approximately 5.8 per cent in the current year over the same month of last year. Industrial production, as measured by the Federal Reserve Board index was 146 (1947-1949 = 100), up 21 per cent over January of last year. The Association's January index of gas utility and pipeline sales is 251.8 (1947-1949 = 100).

During the 12 months ending Jan. 31, 1957, total gas utility and pipeline sales of gas aggregated 74.1 billion therms, up 8.5 per cent over the 68.3 billion therms consumed in the 12 months ending Jan. 31, 1956.

## GAS INDUSTRY INCOME STATEMENT

(MILLIONS OF DOLLARS)

(REFERS TO ALL DISTRIBUTING UTILITIES AND PIPELINE COMPANIES)

	TOTAL INDUSTRY			NATURAL GAS		
	1956	1955	Per Cent Change	1956	1955	Per Cent Change
Total operating revenues	\$5,900	\$5,239	+12.6	\$5,352	\$4,748	+12.7
Operating expenses—operations	3,758	3,306	+13.7	3,422	2,996	+14.2
Operating expenses—maintenance	220	199	+10.6	187	168	+11.3
Operating expenses—total	3,978	3,505	+13.5	3,609	3,164	+14.1
Depreciation, retirements, depletion, amortization, etc.	387	359	+ 7.8	356	332	+ 7.2
Federal income taxes	473	422	+12.1	431	388	+11.1
All other taxes	307	269	+14.1	252	226	+11.5
Total taxes	780	691	+12.9	683	614	+11.2
Total operating revenue deductions	5,145	4,555	+13.0	4,648	4,110	+13.1
Net operating revenues	755	684	+10.4	704	638	+10.3
Other income	67	53	+26.4	47	36	+30.6
Gross income	822	737	+11.5	751	674	+11.4
Interest on long-term debt	216	203	+ 6.4	196	184	+ 6.5
Other income deductions	9	10	-10.0	8	8	0.0
Total income deductions	225	213	+ 5.6	204	192	+ 6.3
Net income	597	524	+13.9	547	482	+13.5

## Duplicating

(Continued from page 26)

ally possible to obtain re-runs. By using zinc or aluminum plates instead of paper masters, many more thousands of copies can be produced. Metal plates can be run time and time again before a new plate is required. Many companies are using metal plates primarily for reproducing forms, particularly where re-runs are necessary.

There are many manufacturers making equipment capable of producing high quality, large volume work by the multilith process; however, the Addressograph-Multigraph duplicating machines Models 1250 and 2066 are predominantly used throughout our industry. Various makes and models such as the A. B. Dick Model 350, Davidson Press, Webendorfer and others are also being utilized effectively and economically.

One company reports that through the

full-time utilization of a battery of six multilithing machines, they are producing annually in the neighborhood of 25 million duplicated copies of such material as forms, bulletins, reports, and documents at a fraction of the cost of farming the work out.

Another company—an electric utility in the East—says, "Approximately a 50 per cent savings is realized over the same amount of work let to an outside duplicating contractor."

But all of the companies contacted do not report a 50 per cent savings by doing their own work. Most of them though, indicate savings ranging from 10 to 40 per cent. These testimonials speak loud and clear—they definitely point out that many thousands of dollars of savings, which might otherwise be going down the drain, are helping greatly to reduce operating costs, thereby assisting in creating a very healthy condition for our companies and for our customers.

Another area not yet touched upon which, according to the information received speeds up the operation of completing a reproduction job, is the equipment used in the finishing stage of the work. Naturally, the reproduction division of any company needs, to execute most jobs properly, certain equipment to complete the work once it has been reproduced in the required amount. Paper cutters, power drills for cutting holes suitable for various binders, collators, automatic staplers, padding devices for padding forms, and other miscellaneous pieces of equipment are usually required. Many of these devices are now either powered for ease of operation or are automatic.

Not too many years ago—before automation—one of the most time-consuming jobs in the reproduction field was the manual operation of collating a many-paged job. Today, automatic col-



lators are the answer to a reproduction supervisor's prayer. A job requiring manual collation which used to take hours for four or five or more employees can now be handled in a fraction of the time by one employee using an automatic collator.

One of the most effective operations of one company is the utilization of an Accra-Feed Automatic Collator. "The original cost of this machine is what you would expect to pay for a new Cadillac," concedes the head of the duplicating department, "But this machine is without a doubt one of the best investments we have ever made in the department. On one of the first jobs for which this machine was used after its purchase and which will be produced each year, the machine saved half its cost in labor."

Nor are the desirable results to be realized through the utilization of a company's own duplicating activity confined to their monetary value. Two other important benefits are internal communications and relations, and customer and public relations.

The many comments from participating companies relating to internal communications and relations can be summed up as follows:

1. Rapid reproduction of bulletins, minutes, notices, commission rulings and a host of other items help to keep all levels of management well informed at all times. This is certainly an important area of concern.

2. Because of reproductions of various departmental reports, procedures, notices and bulletins which are circulated through interested departments or to specific personnel in a minimum of time, good internal relations are being created by elimination of costly delays.

3. In many companies, excellent em-

ployee relations have been established because they can quickly reproduce meeting notices, bulletins, copies of minutes and so forth for the many club and association activities in which many of the employees are engaged.

4. Salesmen can be kept up to date on new equipment, prices, programs and other matters which greatly assist in sustaining their enthusiasm.

Maintaining good employee, customer and public relations is without a doubt a most important responsibility of public utility management. However, many of the companies participating in this study were unable to determine how much of the reproduction work performed by them was helping to improve customer and public relations. On the other hand, a few of the companies were very specific in their praise for the reproduction activity of their company and the manner in which it is benefiting their relations with customers and the general public. Again, these can be outlined briefly:

1. Because large volumes of printed material can be produced economically, sales promotion literature, Christmas greetings, television recipes, calendars, and such, are given to customers and the general public free of charge.

2. Customer inquiries can be handled quickly and economically because the reproduction departments are able to provide large volumes of correspondence within a short period of time.

Probably there are a dozen reasons why a company might decide to do its own duplicating work. This study clearly shows there are at least four of a basic variety: economy of service, speed of service, quality of work, and reliability of service. These values are the primary objectives that appear to be uppermost in the minds of management when re-

viewing the use of duplicating facilities within their companies.

For a company to reach these goals, however, duplicating services must be discriminately used for the over-all operation of the activity to pay off. Work that can be handled quickly and economically, such as the typing of miscellaneous small volume letters, reports, and memos, should be the responsibility of each individual department. If not controlled, there is better than an even chance that the small volume work—the kind that isn't intended to be handled by a production activity—can bog down your duplicating facilities sufficiently to delay beyond reasonable limitations your large volume work. This would, of course, defeat the whole idea of a volume duplicating activity and murder your scheduling program.

Any duplicating activity can assure economy, quality of work and consistent reliability of service only if those in management control and coordinate the demand for service, and maintain facilities only for those processes that cannot be as efficiently and economically provided by other sources; those who are the users of the service properly prepared and requisition the work to be processed; and those who are in charge of the duplicating service effectively control quality, production, and schedule the operations.

Assuming these three requisites are met and carried out religiously, there is no doubt that any reproduction activity with today's modern, automatic equipment can provide a fruitful and economical service worthy of the most efficiently run utility operation.

Specific information concerning the survey can be obtained by writing to the author at 415 Clifford Street, Detroit 26, Michigan.

## Marketing research book

THE A. G. A. Marketing Research Committee has decided to incorporate the memoranda so far prepared on marketing research techniques into the framework of a proposed marketing research handbook. This handbook—which may require five years to complete—has been organized to provide information on methods of getting market facts, organizing the facts into usable form, using the facts for forecasting, using both facts and forecasting in determining activities, and coordinating all market facts for long-range planning and decision-making. The material will be punched for three-ring binders. Those desiring binders may obtain them from the A. G. A. Bureau of Statistics at a cost of \$3 each.

## Dushane GEM chairman

THE Gas Equipment Manufacturers Committee has announced the election of C. Benson Dushane of the American Meter Company as its chairman.

The GEM Committee, which is composed of manufacturers whose products ordinarily are not sold directly to consumers, conducts the GEM program to advertise the advantages of gas appliances and household gas service.

Other officers of the committee have been named as follows: vice-chairman, K. R. D. Wolfe of the Fisher Governor Co.; operating committee members, G. T. Bowman, Rockwell Manufacturing Co., C. H. Abbott, Sprague Meter Co., and Carl N. Brown, U.S. Pipe & Foundry Company.

## Bureau seeks scientists

THE EXPANSION of research and development programs of the United States Bureau of Mines, as proposed in its budget for the coming fiscal year, creates additional opportunities for engineers and scientists interested in government career positions. The bureau is now seeking metallurgists, ore dressers, engineers (mining, petroleum, mechanical, and electrical), chemists, physicists, nuclear physicists, and qualified specialists in other technologies. Vacancies range from GS-5 (\$4,400 a year) to GS-12 (\$7,570 a year) and include some high level administrative and supervisory jobs. Applications may be directed to the Bureau of Mines, U. S. Department of the Interior, Washington 25, D. C.

## Gas cooling

(Continued from page 7)

when the gas rate is too high to be competitive?"

If I suggest that you lower the rate for air conditioning, you will say that you might lose money on that basis, and you are in business to make a profit and not to lose money, which is sound reasoning. But Mr. Chairman, you and I have ample evidence that at prevailing rates, electric utilities very often lose money on the air conditioning component of their business. That does not seem to disturb the electric industry so long as their over-all earnings are maintained at a satisfactory level.

Gentlemen, we are in a critical transitional period. In the battle of the fuels, whoever wins the air conditioning load may eventually win the battle itself. Shouldn't we, for a while, be prepared to take a little of the bitter with the sweet?

A few words now on residential gas air conditioning. First of all, let me state that our long range prospects are excellent. I can say that, because some of the new developments, on which the gas industry is working, point to the availability by 1960 or earlier of year-round gas equipment that will be more economical than the electric equivalent in practically every locality of this nation, including New England.

These machines are expected to be twice as efficient as the gas units of today. They will be installed outdoors and will use air cooled condensers which means no water. They will be eminently suitable to heat pump application (if desired) and even eliminate the need of chimneys.

These words are not dreams but reflect actual experimental units which, although still in the laboratory stage, are in full operation. Extensive development work is also going ahead on improved absorption, adsorption and jet units. These are in the operating prototype stage and are expected to become available between 1958 and 1960.

Meanwhile, what about the immediate future? As you know, the first cost of presently available residential gas cooling equipment is higher than electric, and unfortunately nothing can be done spontaneously to change that situation. Thus, the only answer for the time being is aggressive selling and generous promotion. That's what Springfield is doing.

If we look at the year-round picture, we find that, from a standard of economics the cards are very badly stacked against the electric heat pump, yet this certainly has not proved an obstacle to the promotion of these devices. Last year, electric manufacturers, according to the *Wall Street Journal*, sold nearly 10,000 heat pumps, representing more than three times the number of gas year-round systems sold by Servel and others, in spite of the fact that heat pumps are higher in first cost and in operating cost than present-day gas year-round equipment.

So gentlemen, the conclusion to draw is that *current sales possibilities for residential air conditioning are just exactly what you are willing to make them.*

Incidentally, here is a somewhat intriguing thought applicable to New England. The year-round residential load will go to the energy most suited to take care of the heating load in regions where degree days are 6000 or higher. Conversely, there is danger that in Florida, where degree days are only about 1000, the year-round load will go, and is already going, to the form of energy most adapted to produce cooling.

In other words, the residential heat pump looks out of place in New England and the better you continue to promote residential space heating, the less chance there will be for the electric heat pump to take hold.

But let's admit that the gas industry as a whole is tipsy with its tremendous success in the space-heating market. In many places business is coming so easily and so profitably that the industry is becoming complacent.

I am afraid this has been a very superficial presentation of sales possibilities for gas air conditioning. There is plenty of good in the picture in spite of a few reasons for concern.

Gordon Evans, president of the Kansas Gas & Electric Co., when addressing a recent Heat Pump Conference in New York, remarked that electric utility leadership has been cautious and safe, rather than forward-looking and progressive. "The public has been ahead of us in their thinking," he observed.

Gentlemen, let not our industry be accused of having been even more over-cautious than its competitors. I close by urging you to take your own President's challenging advice "dust off your sales plans, and get going." It's just as simple as that.

## CONVENTION CALENDAR

1957

### MAY

- 6-7 • A. G. A. Residential Gas Section, Eastern Sales Conference, William Penn Hotel, Pittsburgh, Pa.
- 6-8 • Air Conditioning and Refrigeration Institute, The Homestead, Hot Springs, Va.
- 6-10 • National Restaurant Association Convention and Exposition, Navy Pier, Chicago, Ill. (A. G. A. will exhibit)
- 7-9 • A. G. A. Research and Utilization Conference, Hotel Carter, Cleveland, Ohio.
- 8-10 • Joint A. G. A.-PCGA Gas Supply, Transmission and Storage Conference, Mark Hopkins Hotel, San Francisco, Calif.
- 8-10 • Public Utilities Advertising Association, Annual Convention, Hotel Statler, Cleveland, Ohio.
- 12-15 • LPGA Annual Meeting, Conrad Hilton Hotel, Chicago, Ill.
- 19-22 • Industrial Heating Equipment Association, Hot Springs, Va.
- 20-22 • A. G. A. Mid-West Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.
- 20-22 • A. G. A. Chemical, Engineering and Manufactured Gas Production Conference, Balmoral Hotel, Bal Harbour, Fla.
- 21-23 • Pennsylvania Gas Association, Annual Meeting, Pocono Manor Inn, Pocono Manor, Pa.

### JUNE

- 2-5 • American Society of Refrigerating Engineers, Hotel Fontainebleau, Miami Beach, Fla.
- 5-7 • National Warm Air Heating and Air Conditioning Association, Summer Convention, Fairmont Hotel, San Francisco, Calif.
- 24-25 • Michigan Gas Association, Grand Hotel, Mackinac Island, Mich.
- 24-27 • Canadian Gas Association, Jasper Park Lodge, Jasper, Alta., Can.
- 24-27 • American Society of Heating and Air Conditioning Engineers, Semi-Annual Meeting, Murray Bay, Que., Can.

### SEPTEMBER

- 3-5 • Pacific Coast Gas Association Convention, Fairmont and Mark Hopkins Hotels, San Francisco, Calif.
- 6 • New Jersey Gas Association, Annual Meeting, Spring Lake, N. J.
- 13-14 • Maryland Utilities Association, Annual Fall Conference, Cavalier Hotel, Virginia Beach, Va.
- 16-18 • Annual A. G. A. Accident Prevention Conference, Sheraton-Jefferson Hotel, St. Louis, Mo.
- 18-20 • Southeastern Gas Association Convention, Robert E. Lee Hotel, Winston-Salem, N. C.

# Personnel service

## SERVICES OFFERED

**Experienced Industrial Salesman**—available for interview as a factory or a dealer representative. Have covered all phases of public utilities sales, servicing and dealership. Travelled around the country converting small and large industrial plants to natural gas. 1861.

**Chemical Engineer**—with gas engineering experience including operation, testing and process engineering, employed, desires position with gas company. 1864.

**Personnel Director**—nine years of intensive diversified experience with Eastern public utility. Thoroughly qualified to function in all areas of industrial relations and personnel administration. 1865.

**Gas Heating Sales Engineer**—with twenty years' utility experience would like position with utility company or dealer starting gas heating promotion, dealer cooperation and general load-building. Will go anywhere. References. 1866.

**Gas-Oil-Chief Engineer**—design, development, tooling, production—gas and oil fired—space heaters, floor furnaces, forced air units, boilers. Familiar with A.G.A. and UL requirements. Experience includes sales management with nationwide distribution. Married 16 years. B.S. mechanical engineering, Oregon State. Top references. (40) 1867.

**General or Operations Manager**—27 years experience in all phases of gas industry—last 7 in natural. Well known in industry. Available immediately. Details upon request. Married. (48) 1868.

**Mechanical Engineer**—three years A.G.A. experience; including supervision and testing of all types of gas appliances. Thorough knowledge of all A.G.A. burner design research published to date. Resume and references upon request. 1869.

**Research Director**—in development and manufacturing of fibre glass, tubular structures and pipelines desires affiliation with progressive industry requiring this type of experience. (45) 1870.

## POSITIONS OPEN

**Engineer-Supervisor**—to take complete charge of production for a well-established gas heating manufacturer in New England. Knowledge of A. G. A. test procedure and managerial qualities desirable. Position offers an excellent opportunity with a small well-established and growing concern. Must have drive and willingness to assume responsibility. 0839.

**Comptroller**—for growing natural gas company in Pacific Northwest. Must have working knowledge of gas utility accounting and natural gas operations. Will direct all accounting activity, administer accounting system throughout company, supervise present staff of competent accountants. 0840.

**Rate Research Engineer**—needed by combination gas and electric company in New England. Located in desirable, moderate size city with pleasant surroundings. Possibility of subsequent expansion of responsibilities to market research and related problems. 0841.

## Utility men attend two-week Ebasco Services safety seminar

TWO WEEKS of intensive study of public utility safety and its interrelation with all phases of operations were completed March 8 by 18 safety, operating and personnel men of Ebasco client companies. The seminar was conducted by W. T. Rogers, safety director of Ebasco Services, in cooperation with the Center for Safety Education of New York University, whose director is Dr. H. J. Stack.

The seminar included lectures, discussion periods, safety film previews, and field trips, and explored in detail the operation of a complete utility safety program. Theories and practices concerning operation of the safety program, fire protection, motor vehicle safety and training methods were presented in classroom sessions. Field trips covered safety programs in operation at Consolidated Edison

Company and Long Island Lighting Company and the Army safety and driver training programs at Governors Island as well as a demonstration of fire protection equipment at the C-O-Two Fire Equipment Company.

In addition, seminar members studied courses of value in the development of administrative and managerial abilities, including the techniques of supervision.

## Correspondence course built around new text on natural gas

A COMPLETELY new text has been written for the natural gas correspondence study course offered by the University of Kansas extension division. With the cooperation of the Natural Gas Educational Committee, representing the major companies operating in the Hugoton gas field, 34 prominent men were selected to write the various sections of the new text, *Natural Gas*.

The lessons in the textbook cover such topics as physical measurements for natural gas, laws of ideal gases, estimation of gas reserves, gas measurement and regulation, pipeline construction, gas compression, underground storage, liquefied gases, and government regulations of the natural gas industry. The entire course consists of 25 lessons on these and related topics.

The course costs \$65 plus the price of the text, which costs \$14.85. It is directed towards persons in the industry who have a high school education or its equivalent and some knowledge of elementary chemistry and elementary physics.

An application blank for the course may be obtained from University Extension, University of Kansas, Lawrence, Kansas.

## Gas industry '56 tax bill 31 per cent greater than net income

THE 1956 tax bill of the gas utility and pipeline industry was nearly 31 per cent greater than net income available for distribution to stockholders and for expansion to meet consumer requirements, the American Gas Association reports.

Taxes for the year reached \$780 million, nearly 13 per cent above the previous year, while net income was \$597 million, compared with \$524 million in 1955.

Total operating revenues of the industry climbed to \$5.9 billion, a gain of \$661 million or 12.6 per cent over 1955. Net operating revenues increased 10.4 per cent, from \$684 million to \$755 million.

Total operating revenue deductions of \$5.145 billion represented 87.2 per cent of total operating revenues, slightly higher than in 1955 when deductions of \$4.555 billion amounted to 86.9 per cent of revenues of \$5.239 billion.

Gas utility sales to ultimate customers (excluding sales to other utilities for resale)

produced revenues of \$3.837 billion in 1956. This was an advance of 11.8 per cent over the 1955 figure of \$3.433 billion.

Sales aggregated 71,653 million therms in 1956, an increase of 7.2 per cent over the 66,834 million therms sold in 1955.

Natural gas sales totaled 68,350 million therms, a gain of 7.9 per cent over sales of 63,337 million therms of natural gas in 1955. This produced revenues of \$3.4 billion, 14.5 per cent above 1955 revenues of \$2.97 billion.

Customers served through utility mains at year's end totaled 29.9 million, in addition to about 209,000 customers receiving liquefied petroleum gas through utility mains. This was an increase of 3.1 per cent over the 28.9 million utility gas customers served at the close of 1955.

Natural gas customers at the close of 1956 aggregated 26.3 million and represented 88 per cent of all gas industry customers. A year earlier there were 23.8 million natural

gas customers, 82.3 per cent of total customers.

For the fourth quarter of 1956, these facts were highlighted: Total sales of 17,925 million therms and total revenues of \$966 million were gains of 2.0 and 3.3 per cent, respectively, over the fourth quarter of 1955. Natural gas sales amounted to 17,294 million therms and \$878 million, advancing 3.7 and 7.6 per cent, respectively. Sales of manufactured and mixed gas decreased 29.1 per cent and revenues from such sales dropped 26.1 per cent, indicating the steady conversion from these types to natural gas.

## Pocono Manor for PGA

PENNSYLVANIA Gas Association will hold its annual meeting—including election of officers—at Pocono Manor Inn, Pocono Manor, Pa., May 21-23. The site of this meeting was listed incorrectly in the March issue of the A. G. A. MONTHLY.



## A.G.A. advisory council

E. R. ACKER.....	Poughkeepsie, N. Y.
B. C. ADAMS.....	Kansas City, Mo.
FRANK H. ADAMS.....	Toledo, Ohio
F. M. BANKS.....	Los Angeles, Calif.
L. L. BAXTER.....	Fayetteville, Ark.
L. E. BIEMILLER.....	Baltimore, Md.
DAVID B. W. BROWN.....	New York, N. Y.
J. H. CARSON.....	Cleveland, Ohio
GLENN W. CLARK.....	St. Louis, Mo.
SHELDON COLEMAN.....	Wichita, Kans.
J. H. COLLINS SR.....	New Orleans, La.
J. F. DONNELLY SR.....	Milwaukee, Wis.
E. H. ECKER.....	Boston, Mass.
E. R. EBERLE.....	Newark, N. J.
RALPH L. FLETCHER.....	Providence, R. I.
N. HENRY GELLERT.....	Seattle, Wash.
W. G. HAMILTON JR.....	Philadelphia, Pa.
R. M. HESKETT.....	Minneapolis, Minn.
FREDERIC O. HESS.....	Dresher, Pa.
J. K. HORTON.....	San Francisco, Calif.
PAUL KAYSER.....	El Paso, Texas
A. W. LUNDSTRUM.....	Columbus, Ohio
EARLE J. MACHOLD.....	Syracuse, N. Y.
H. N. MALLON.....	Dallas, Texas
J. F. MERRIAM.....	Omaha, Neb.
JAMES F. OATES JR.....	Chicago, Ill.
L. B. RICHARDS.....	Harrisburg, Pa.
LOUIS RUTHENBURG.....	Evansville, Ind.
FRANK C. SMITH.....	Houston, Texas
E. CARL SORBY.....	Rockford, Ill.
W. T. STEVENSON.....	Owensboro, Ky.
R. G. TABER.....	Atlanta, Ga.
PAUL R. TAYLOR.....	Houston, Texas
TOM P. WALKER.....	Houston, Texas
T. WEIR.....	Chatham, Ontario
GEORGE E. WHITWELL.....	Philadelphia, Pa.
CHARLES G. YOUNG.....	Springfield, Mass.
B. H. WITTMANN.....	Chicago, Ill.

### PAR COMMITTEE

Chairman—Wister H. Ligon, Nashville Gas Co., Nashville, Tenn.

### General Promotional Planning Committee

Chairman—Christy Payne, Jr., The Peoples Natural Gas Co., Pittsburgh, Pa.

### General Research Planning Committee

Chairman—Samuel Green, The Brooklyn Union Gas Co., Brooklyn, N. Y.

### General Public Information Planning Committee

Chairman—Thomas H. Evans, Equitable Gas Co., Pittsburgh, Pa.

### FINANCE COMMITTEE

Chairman—E. R. Ackers, Central Hudson Gas & Electric Corp., Poughkeepsie, N.Y.

### LABORATORIES MANAGING COMMITTEE

Chairman—N. B. Bertolette, The Hartford Gas Co., Hartford, Conn.

### APPROVAL REQUIREMENTS COMMITTEE

Chairman—H. B. Noyes, Washington Gas Light Co., Washington, D. C.

## Associated organizations

### GAS APPLIANCE MANUFACTURERS ASSOCIATION

Pres.—Julius Klein, Caloric Appliance Corp., Philadelphia 7, Pa.  
Man. Dir.—Harold Massey, 60 East 42nd St., New York 17, N. Y.

### CANADIAN GAS ASSOCIATION

Pres.—F. R. Palin, Union Gas Co. of Canada, Ltd., Chatham, Ontario.  
Gen. Mgr.—W. H. Dalton, 6 Hayden St., Toronto 5, Ontario.

### FLORIDA-GEORGIA GAS ASSOCIATION

Chrmn.—A. H. Gaede, Florida Home Gas Co., Deland, Fla.  
Sec.-Tr.—Paul J. Crawford, Ocala Gas Co., Ocala, Fla.

### ILLINOIS PUBLIC UTILITIES ASSOCIATION

Sec.-Tr.—T. A. Schlink, Central Illinois Light Co., Peoria, Ill.

### INDIANA GAS ASSOCIATION

Pres.—C. M. Cullison, Central Indiana Gas Co., Muncie, Ind.  
Sec.—V. C. Seiter, Citizens Gas and Coke Utility, Indianapolis 9, Ind.

### THE MARYLAND UTILITIES ASSOCIATION

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Sec.—Robert L. Smith, Lexington Building, Baltimore, Maryland

### MICHIGAN GAS ASSOCIATION

Pres.—William R. Carlyon, Consumers Power Co., Lansing, Mich.  
Sec.-Tr.—M. G. Kendrick, Michigan Consolidated Gas Co., Ann Arbor, Mich.

### MID-WEST GAS ASSOCIATION

Pres.—Peter C. DeHaan, Iowa Power and Light Co., Des Moines, Iowa.  
Sec.-Tr.—Everett E. Baxter, Central Electric and Gas Co., Lincoln, Neb.

### NATURAL GAS AND PETROLEUM ASSOCIATION OF CANADA

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Man. Dir.—Clark Belden, 10 Newbury St., Boston 16, Mass.

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Sec.—R. W. Uhler, Harrisburg Gas Div., United Gas Improvement Co., Harrisburg, Pa.

### PENNSYLVANIA NATURAL GAS MEN'S ASSOCIATION

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Sec.-Tr.—P. L. Kesel, Carnegie Natural Gas Co., Pittsburgh, Pa.

### ROCKY MOUNTAIN GAS ASSOCIATION

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Sec.-Tr.—H. P. Risley, Public Service Company of Colorado, Denver 2, Colo.  
Field Sec.—Roy G. Munroe, Rm. 16, 1300 Glenarm St., Denver 2, Colo.

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Pres.—R. A. Puryear, Jr., Alabama Gas Corp., Birmingham 3, Ala.  
Man. Dir.—Robert R. Suttle, 1932 Life of America Building, Dallas 1, Texas.

### WISCONSIN UTILITIES ASSOCIATION

Pres.—Richard W. Leach, Wisconsin Natural Gas Co., Racine, Wis.  
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# American Gas Association

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